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# South Carolina PRAMS 1998 Databook

Volume IV

July 2000

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## Surveillance Report on Maternal Health and Experiences during Pregnancy and the Early Infancy Period

Division of Biostatistics  
Office of Public Health Statistics and Information Systems  
South Carolina Department of Health and Environmental Control

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## Foreword

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The quantitative and qualitative collection, analysis, and use of maternal and child health data are fundamental to the development of an infrastructure to solve women and children's health problems at the state and local levels. Data analysis should be a central component of efforts to identify maternal and child health needs, to design appropriate program interventions, to manage and evaluate those interventions, and to monitor our progress toward achieving the Year 2000 Objectives (1).

## Acknowledgments

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First and foremost, the SC PRAMS project staff is grateful to those South Carolina mothers who kindly took the time to complete the survey. Their invaluable information which is summarized, herein, provides a greater understanding of the health of mothers and infants in South Carolina.

For the technical support and assistance in this report, the SC PRAMS Team is indebted to the CDC PRAMS Team, in the Division of Reproductive Health, Centers for Disease Control and Prevention.

This report is completed by Kristen Helms and Mary Kate Dillard in collaboration with the Division of Biostatistics, Office of Public Health Statistics and Information Systems, and the Bureau of Maternal and Child Health. Special appreciation for their guidance and support in this endeavor goes to Guang Zhao, PhD, Jim Ferguson, DrPh and Murray Hudson, MPH.

## Introduction & Background

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### **I. Introduction**

The South Carolina Pregnancy Risk Assessment Monitoring System (SC PRAMS) Project plays a significant role in SC DHEC's public health surveillance activities. The PRAMS Project monitors and disseminates information on maternal behavioral risk factors occurring during pregnancy and on a child's early infancy period related to birth outcomes. Thus, the SC PRAMS Project provides sound and reliable maternal and infant health data which can be used by health professionals for the planning and evaluation of perinatal health programs and for making policy decisions affecting the health of mothers and babies in South Carolina.

### **II. Background**

In 1998, South Carolina's infant mortality rate was 9.5 deaths per 1,000 live births. From 1989 to 1996, the overall infant mortality rate declined steadily. However, in 1997 the rate jumped to 9.5 (from 8.3 in 1996) and remained unchanged for 1998. The race specific infant mortality rate for white babies was 6.0 deaths per 1,000 live births in 1998, while for blacks and other infants the rate was 15.4 deaths per 1,000 births in 1998. As compared to infants of white mothers, infants of minority mothers are more than twice as likely to die before they reach one year of age (2). A major determinant of infant death is birthweight at birth. Infants with a birthweight of less than 2,500 grams (LBW) are at increased risk of death and future chronic disabilities. A comprehensive report on the prevention of low birthweight calls for a better understanding of the behavioral, social, and health service utilization factors that may contribute to the health

disparities among minority women and women of lower socioeconomic status (3).

### **III. Project Description**

The SC PRAMS Project, conducted by the Office of Public Health Statistics and Information Systems, Division of Biostatistics, was established in 1991 through a collaborative agreement between the Centers for Disease Control and Prevention (CDC) and the South Carolina Department of Health and Environmental Control (SC DHEC). The SC PRAMS Project was designed to collect, monitor, analyze, and disseminate information on a wide variety of maternal behaviors and health experiences that may be associated with different birth outcomes.

Approximately 2,100 South Carolina mothers delivering live infants in the state are sampled from the birth registry and surveyed each year. *Self-reported* information is collected from mail and telephone surveys. The questionnaire consists of 69 structured and standardized questions (see Appendix A) and is designed to collect information on selected maternal behaviors and experiences during pregnancy and during the child's early infancy period. The mail survey is sent to sampled mothers up to three times and phone follow-ups are attempted for nonrespondents. Sample data is weighted to adjust for sampling probabilities, nonresponse and noncoverage (see Appendix B). A special statistical survey software, SUDAAN, is used to conduct analyses on each year of completed survey data.

Ongoing survey data collection was initiated in January, 1993. Six years of survey data have been completed. The response rates have increased from 69% in 1993 to 71.3% in 1998, with an

overall response rate for all years, 1993-1998, of 71.3%.

#### **IV. The PRAMS Staff and Collaborators**

The SC PRAMS Project staff consist of the following individuals: Guang Zhao, PhD (PRAMS Project Director), Kristen Helms, MSPH (PRAMS Project Coordinator) and Mary Kate Dillard (PRAMS Data Manager). The CDC-based PRAMS Team members have provided valuable technical assistance and consultation on all aspects of the SC PRAMS project. In addition, the SC PRAMS staff has collaborated with maternal and child health program directors throughout the agency (SC DHEC).

#### **V. Using this Databook**

The SC PRAMS Databook is organized into ten sections covering broad areas of maternal and infant health. In the first nine section, “fact sheets” precede each section with data highlights for that topic area. The tenth section contains the PRAMS survey and technical notes. *It is important to remember that information in this book is representative of all South Carolina mothers delivering live infants in South Carolina. Thus, generalizations can be made to this group only. Also, keep in mind that all survey information is based on self-reports from the women.*

Selected PRAMS-based maternal and child health indicators have been compared to Healthy People 2000 Objectives for the nation. PRAMS data will be useful to health professionals in determining whether or not targeted health objectives are being met.



# Prenatal Care Fact Sheet

Between the years of 1993-1998...

The percentage of women who entered prenatal care during the first trimester (weeks 1-12) increased from 70% to 77.6%.

In 1997 and 1998, women with the following characteristics were less likely to enter prenatal care during the first trimester of pregnancy:

- black
- less than 18
- less than high school education
- unmarried
- on Medicaid

In 1998, women with the following characteristics were more likely to receive adequate prenatal care:

- white
- 24-34 years of age
- married
- not on Medicaid
- had a high school or greater education

In 1998, 21.4% of women did not receive prenatal care as early as they wanted. However, 40% of those women actually entered care during the first trimester.

In 1998, among women with late prenatal care, the most common barriers to entering care as early as wanted were...

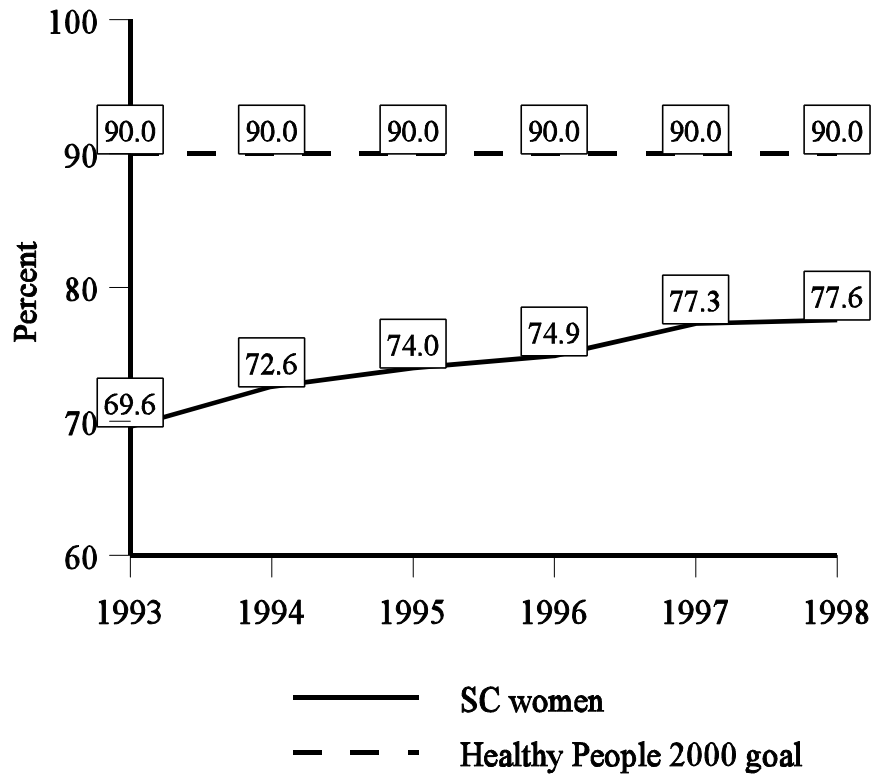
- she didn't know she was pregnant (38.8%)
- there wasn't an earlier appointment available (22.6%)
- she didn't have enough money (21.6%)

In 1998, the top three sources of prenatal care were private doctor's office (75.8%), hospital clinic (9.3%), and the health department (6.6%).

## Prenatal Care

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Proportion of Women Who Entered Prenatal Care  
during the First Trimester\*, 1993-1998



\*Note: First trimester is defined by PRAMS as weeks 1-12; therefore, this percentage is not comparable to the Healthy People 2000 Goal, which includes the 13<sup>th</sup> week in its definition of first trimester. If the 13<sup>th</sup> week is included, according to PRAMS data, SC is very close to reaching the Healthy People 2000 goal (90%). In 1998, 86% of SC women received care in the first 13 weeks of pregnancy.

The proportion of women entering prenatal care during the first trimester increased from 70% in 1993 to almost 78% in 1998.

## Prenatal Care

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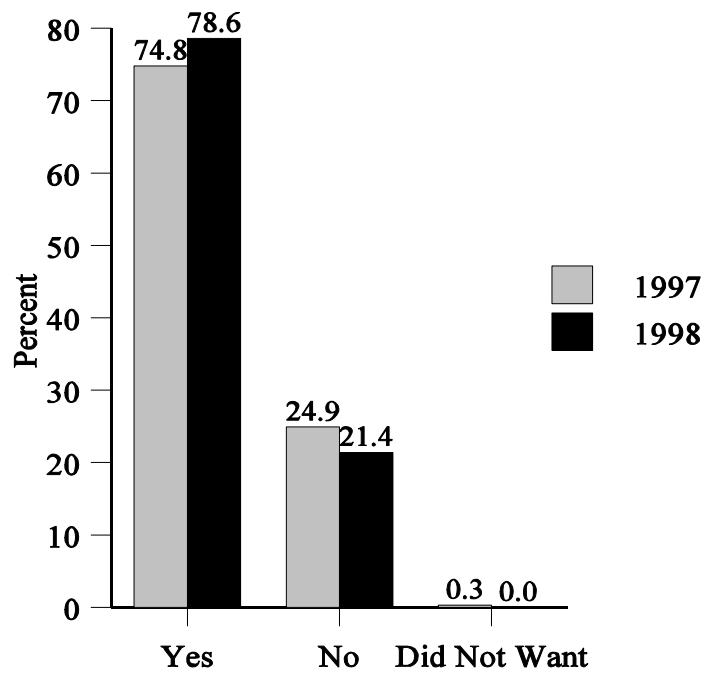
### Characteristics of Women Entering Prenatal Care during the First Trimester, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	77.3 (1.8)	77.6 (1.8)
<b>Race</b>		
Black	66.5 (3.5)	65.2 (3.4)
White	83.5 (2.0)	85.3 (1.9)
<b>Age</b>		
Less than 18	48.3 (8.0)	53.4 (8.3)
18-24	70.1 (3.5)	72.2 (3.3)
25-34	85.7 (2.2)	84.6 (2.3)
35-55	82.1 (5.0)	81.2 (5.1)
<b>Education</b>		
Less than High School	61.0 (4.8)	67.1 (4.8)
High School	74.5 (3.3)	74.8 (3.2)
More than High School	87.0 (2.2)	87.4 (2.3)
<b>Marital status</b>		
Married	87.9 (1.7)	85.9 (1.9)
Other	60.7 (3.6)	65.0 (3.4)
<b>Medicaid status</b>		
Yes	66.3 (2.9)	67.3 (2.8)
No	89.5 (1.9)	89.9 (2.0)
<b>Birthweight</b>		
LBW (<2500 g)	72.0 (1.8)	73.5 (1.8)
NBW (2500+ g)	77.8 (2.0)	78.0 (2.0)

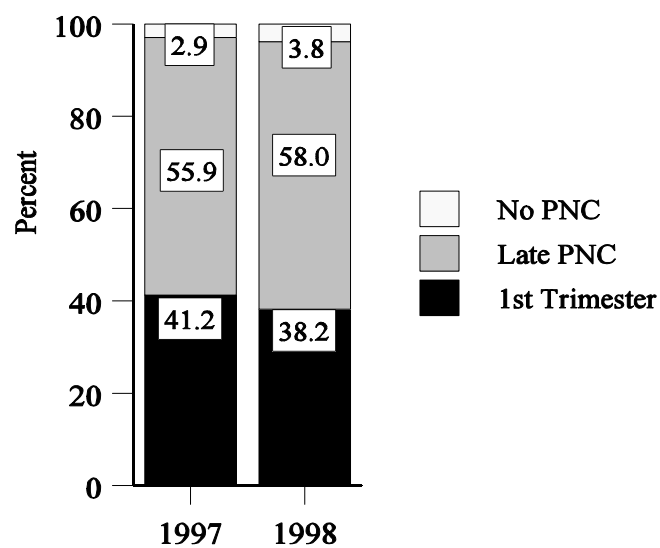
## Prenatal Care

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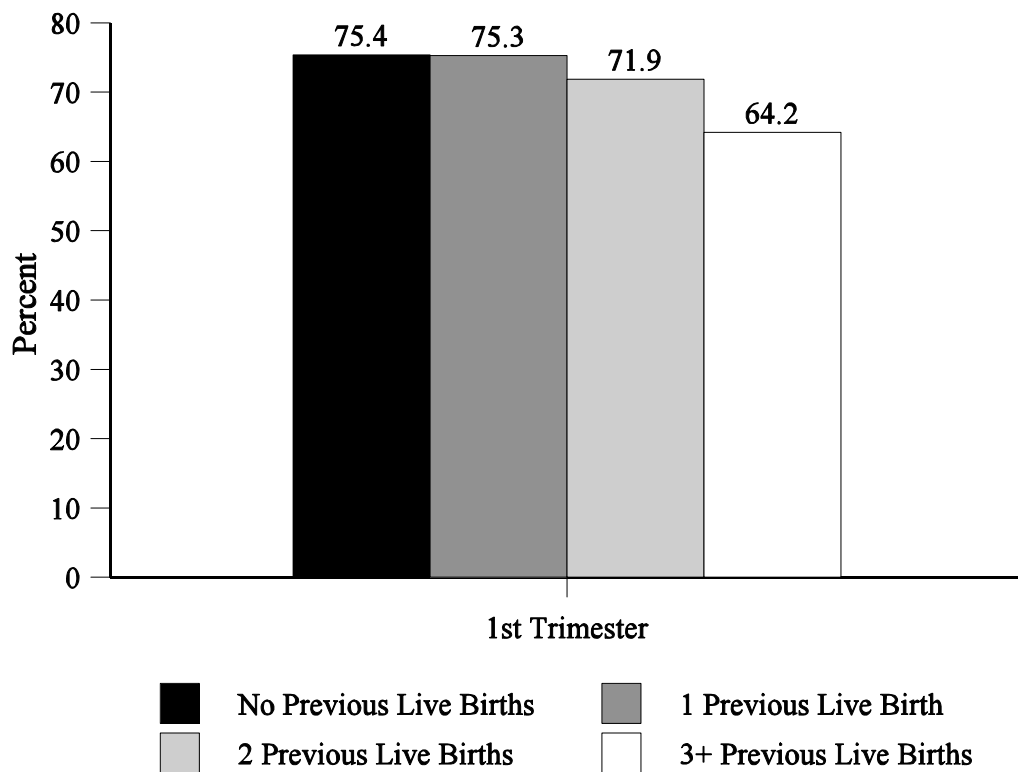
Proportion of Women Who Entered Prenatal Care as Early as Wanted,  
1997-1998



First Trimester Care for Women Who  
Did Not Receive Prenatal Care as Early as They Wanted, 1997-1998



Prenatal Care Entry: Differences by Parity, 1993-1998

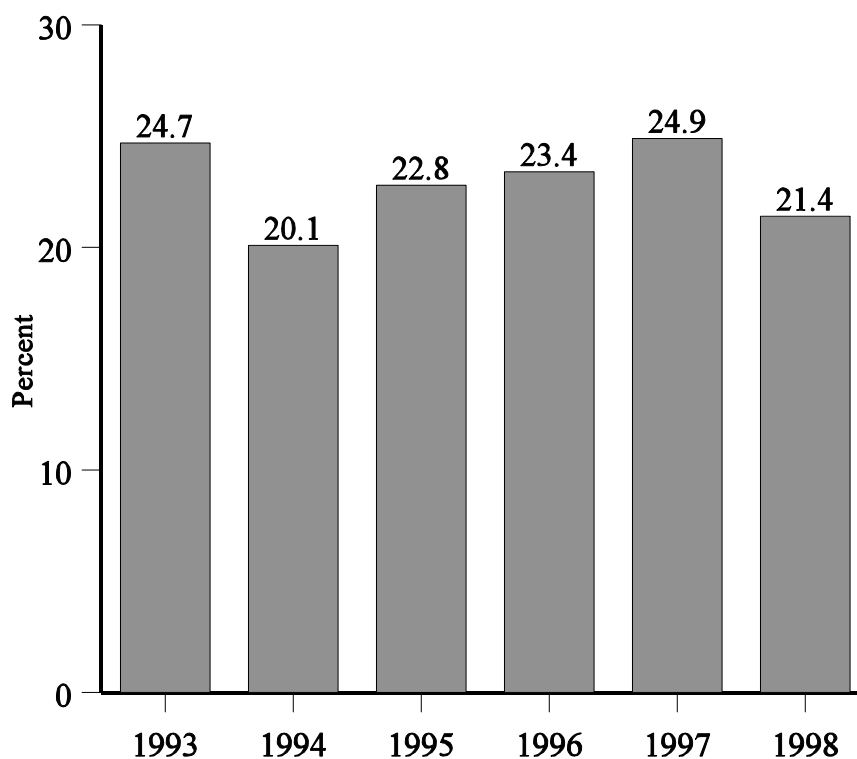


Between the years of 1993-1998, women with 3 or more previous live births were less likely to enter care before the end of the first trimester compared to women with fewer or no previous live births.

## Prenatal Care

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Proportion of Women Who Did Not Enter Prenatal Care as Early as They Wanted\*, 1993-1998



\*Of the women in 1997 and 1998 who said they did not receive prenatal care as early in their pregnancy as wanted, 40% actually entered care during the first trimester.

Between the years of 1993-1998, over 20% of women were unable to receive prenatal care as early as they wanted.

## Prenatal Care

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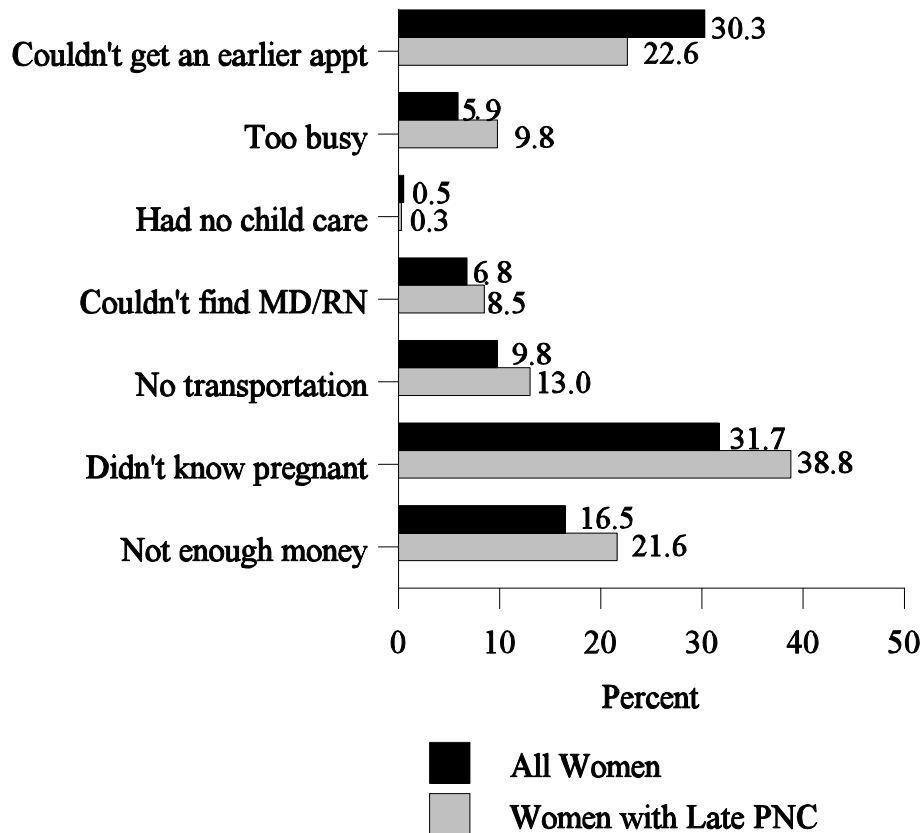
### Characteristics of Women Who Did Not Enter Prenatal Care as Early as Wanted, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	24.9 (1.9)	21.4 (1.8)
<b>Race</b>		
Black	28.6 (3.3)	27.0 (3.1)
White	23.0 (2.3)	17.9 (2.1)
<b>Age</b>		
Less than 18	52.3 (7.9)	35.6 (7.8)
18-24	29.6 (3.4)	26.2 (3.2)
25-34	18.0 (2.4)	17.1 (2.3)
35-55	22.5 (5.2)	13.7 (4.5)
<b>Education</b>		
Less than High School	39.1 (4.7)	28.7 (4.6)
High School	24.7 (3.2)	21.5 (2.9)
More than High School	18.3 (2.5)	16.0 (2.4)
<b>Marital status</b>		
Married	17.9 (2.0)	16.7 (2.0)
Other	36.0 (3.4)	28.5 (3.2)
<b>Medicaid status</b>		
Yes	33.2 (2.9)	26.9 (2.6)
No	15.8 (2.2)	14.9 (2.2)
<b>Birthweight</b>		
LBW (<2500 g)	29.5 (1.9)	28.0 (1.8)
NBW (2500+ g)	24.5 (2.0)	20.8 (1.9)

## Prenatal Care

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### Barriers to Entering Prenatal Care as Early as Wanted, 1998



Note: Some women reported that they did not get care as early as they wanted, but still managed to receive care before the end of the first trimester.

Top 3 Barriers to receiving prenatal care as early as wanted in 1998 were...

Women did not know they were pregnant

There was no earlier appointment available

Women did not have enough money to pay for the visits.

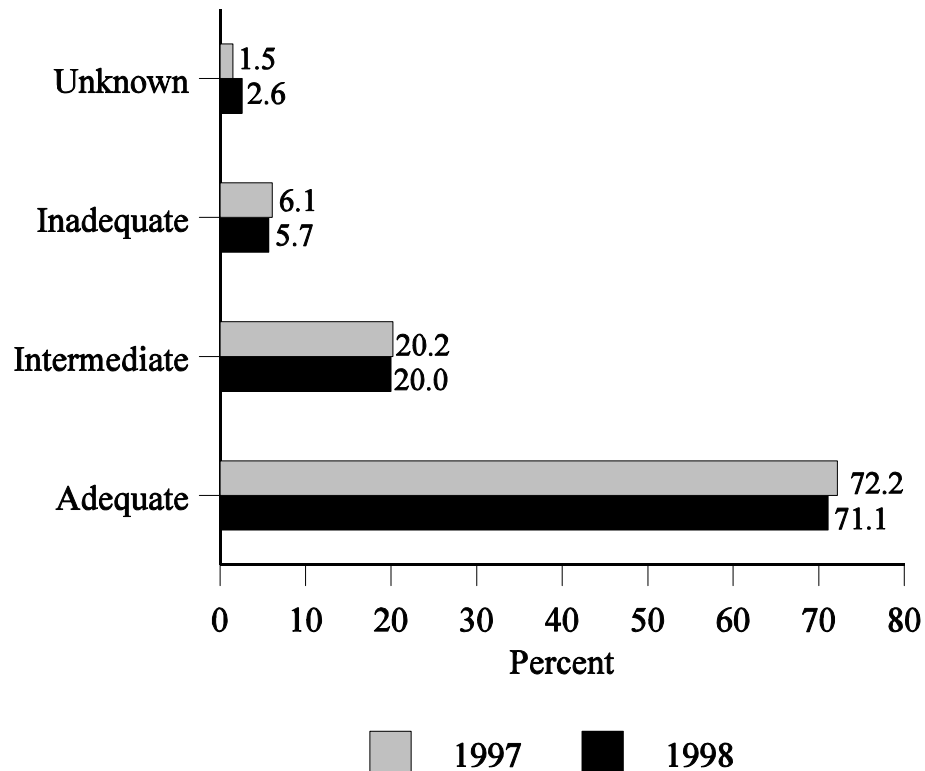
The proportion of women, not receiving first trimester care, who reported that they could not get an earlier appointment has increased from 12.1% in 1996 to 30.3% in 1998.



## Prenatal Care - Adequacy (Kessner Index)

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### Adequacy of Prenatal Care by Kessner Index Standards\*, 1997-1998



\*Kessner Index defines prenatal care as adequate, intermediate, or inadequate. These categories are based on gestational age, month of first prenatal care visit, and total number of prenatal care visits. Total number of prenatal care visits was taken from question 13 of the PRAMS survey. Gestational age and month prenatal care began were taken from the birth certificate file.

Under 6% of women received inadequate prenatal care in 1998.

Women more likely to receive inadequate prenatal care were...

- black
- on Medicaid
- 35 years of age or older
- unmarried
- and had less than high school education.

## Prenatal Care - Adequacy

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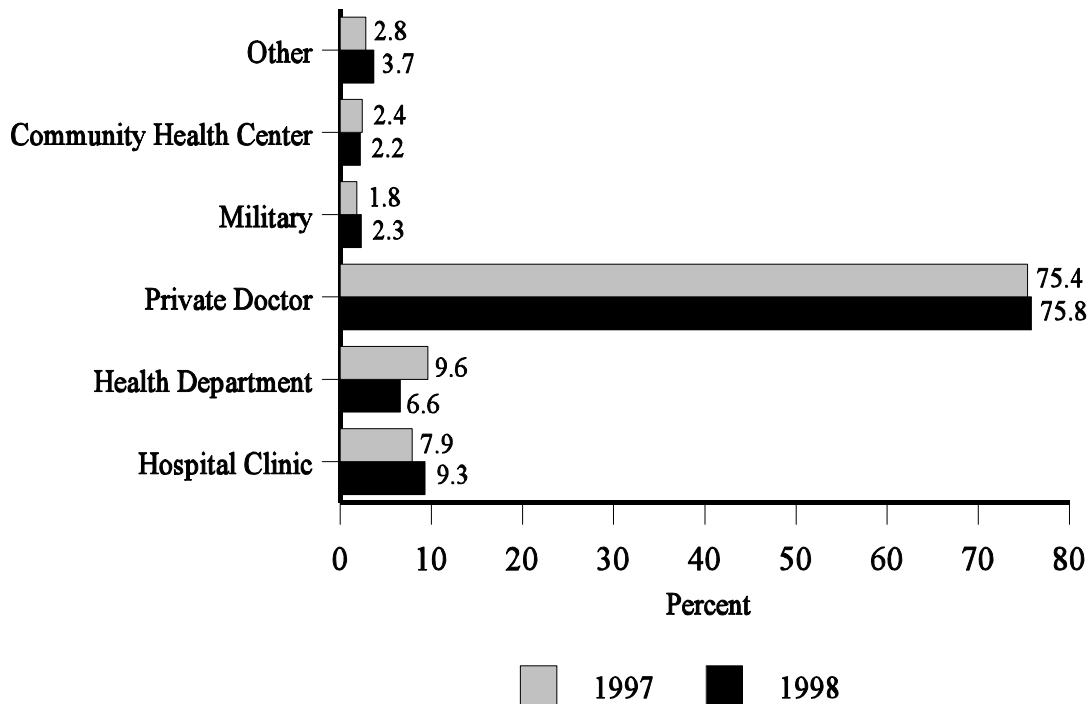
Distribution of Adequacy of Prenatal Care by Maternal Characteristics, 1998

<b>Maternal Characteristics</b>	<b>Adequate percent (s.e.)</b>	<b>Intermediate percent (s.e.)</b>	<b>Inadequate percent (s.e.)</b>
<b>Total</b>	71.7 (1.9)	20.0 (1.8)	5.7 (1.1)
<b>Race</b>			
Black	63.8 (3.5)	24.9 (3.1)	11.3 (2.4)
White	80.0 (2.2)	17.5 (2.1)	2.5 (0.9)
<b>Age</b>			
Less than 18	56.0 (8.1)	35.9 (7.9)	8.2 (4.0)
18-24	71.7 (3.3)	21.4 (3.0)	6.9 (2.1)
24-34	79.8 (2.6)	17.1 (2.4)	3.2 (1.2)
35-55	62.5 (6.5)	23.3 (5.6)	14.2 (4.8)
<b>Education</b>			
Less than HS	65.9 (4.9)	19.6 (4.0)	14.5 (3.9)
High School	71.9 (3.3)	24.1 (3.2)	4.0 (1.4)
More than HS	78.3 (2.7)	18.9 (2.6)	2.8 (1.2)
<b>Marital status</b>			
Married	82.7 (2.0)	15.2 (1.9)	2.1 (0.8)
Other	59.8 (3.5)	28.6 (3.2)	11.6 (2.4)
<b>Medicaid status</b>			
Yes	65.8 (2.8)	24.9 (2.6)	9.3 (1.9)
No	83.0 (2.4)	15.3 (2.3)	1.8 (0.8)
<b>Birthweight</b>			
LBW (<2500 g)	60.9 (2.0)	28.6 (1.9)	10.5 (1.3)
NBW (2500+ g)	74.7 (2.1)	19.8 (1.9)	5.5 (1.2)

## Prenatal Care - Source

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Sources of Prenatal Care, 1997-1998



Most common source of prenatal care in 1997 and 1998 was a private doctor.

The proportion of women receiving prenatal care from a private doctor increased from 66% in 1993 to 75.8% in 1998.

Percent of women receiving prenatal care at health department clinics decreased from 14% in 1993 to 6.6% in 1998.

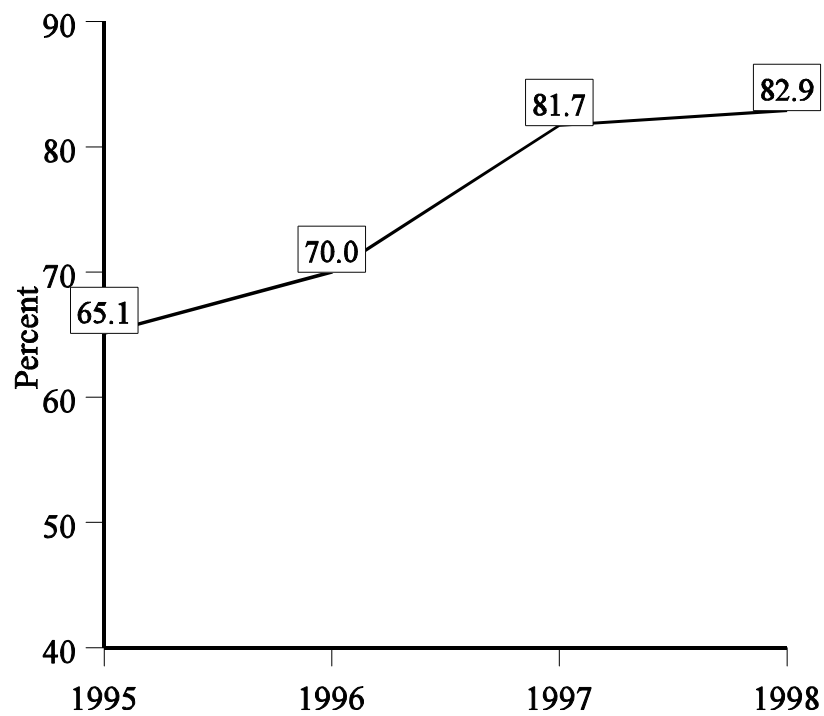
## Prenatal Care - Source

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Top Three Sources of Prenatal Care by Maternal Characteristics, 1998

<b>Maternal Characteristics</b>	<b>Hospital Clinic percent (s.e.)</b>	<b>Health Dept. Clinic percent (s.e.)</b>	<b>Private MD percent (s.e.)</b>
<b>Total</b>	9.3 (1.3)	6.6 (1.1)	75.8 (1.9)
<b>Race</b>			
Black	15.4 (2.6)	9.0 (2.0)	64.8 (3.4)
White	5.4 (1.3)	5.3 (1.3)	82.9 (2.1)
<b>Age</b>			
Less than 18	17.3 (6.1)	16.1 (6.3)	52.1 (8.4)
18-24	15.5 (2.7)	10.4 (2.3)	63.9 (3.5)
25-34	4.1 (1.3)	3.2 (1.1)	88.1 (2.1)
35-55	5.8 (3.0)	2.7 (1.9)	76.1 (5.6)
<b>Education</b>			
Less than HS	10.6 (2.9)	17.8 (4.0)	57.6 (5.1)
High School	15.4 (2.7)	7.3 (1.9)	67.8 (3.4)
More than HS	4.1 (1.3)	1.9 (0.9)	88.2 (2.1)
<b>Marital status</b>			
Married	4.8 (1.1)	1.9 (0.7)	85.7 (1.9)
Other	16.2 (2.7)	14.0 (2.5)	60.5 (3.5)
<b>Medicaid status</b>			
Yes	16.7 (2.3)	12.3 (2.0)	63.0 (2.9)
No	0.7 (0.4)	0.0 (0.0)	90.7 (1.8)
<b>Birthweight</b>			
LBW (<2500 g)	14.8 (1.5)	6.6 (1.1)	70.6 (1.9)
NBW (2500+ g)	8.8 (1.4)	6.6 (1.2)	76.3 (2.0)

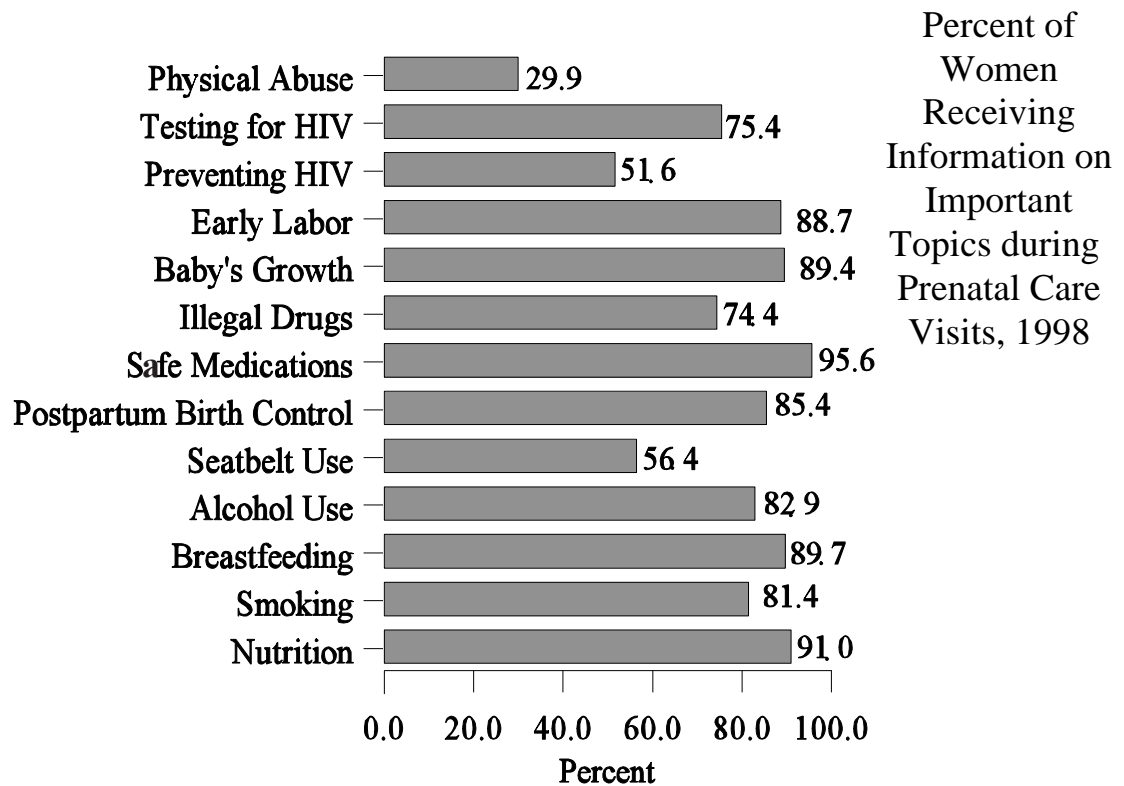
Proportion of Women Who Have Heard or Read of the Benefits of  
Taking Folic Acid, 1995-1998



The proportion of women who have heard or read that taking the vitamin folic acid may prevent some birth defects has increased from 65.1% in 1995 to almost 83% in 1998.

## Prenatal Care - Education

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The top three topics women received information on during prenatal care visits:

- Medications which are safe to take during pregnancy
- Proper nutrition during pregnancy
- Breastfeeding

Only 30% of women received information on physical abuse, and just over one-half of the women received information from their health care provider on preventing HIV and using a seatbelt during pregnancy.

## Family Planning Fact Sheet

Between the years of 1993-1998...

The percentage of women with unintended pregnancies ranged from a high of 51.1% in 1996 to a low of 45.8% in 1998, however the percentage of unwanted pregnancies increased from 1997 (11.8%) to 1998 (12.8%).

The percentage of women NOT using a contraceptive method postpartum increased from 7.4% in 1993 to 15.4% in 1998.

Between the years of 1997-1998...

Among women who experienced unintended pregnancies,

23.2% of women were not using contraception;

33.7% of women had discontinued using their contraception; and

43.2% reported that their contraceptive method failed.

From 1997 to 1998...

There was an increase in the percentage of women entering prenatal care during the first trimester among women with mistimed and unwanted pregnancies.

Women who were...

black

teenagers

unmarried

on Medicaid and

had a high school education or less

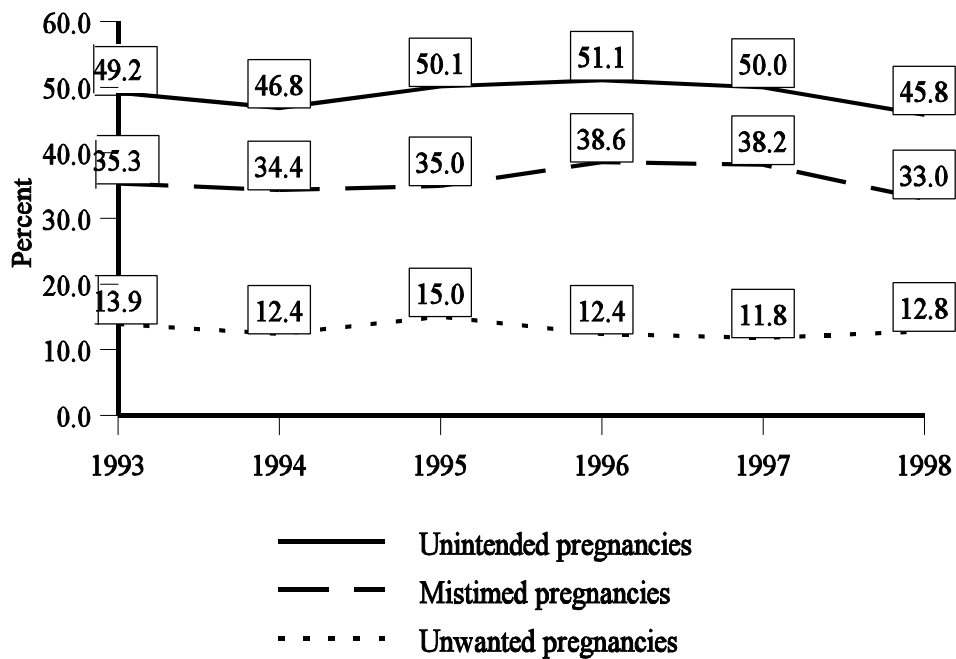
were more likely to experience unintended pregnancies than women without these characteristics.

We are far from reaching the Healthy People 2000 goal to reduce the percentage of unintended pregnancies to 30% of all pregnancies (45.8% in 1998), and 40% of all pregnancies in black women (64.4% in 1998).

## Family Planning - Pregnancy Intention

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Percent of Unintended Pregnancies\*, 1993-1998



\*An **unintended pregnancy** is defined as a pregnancy that is either mistimed (wanted at a later time) or unwanted.

From 1997 to 1998, the percentage of unintended pregnancies decreased from 50% to 45.8%, however, the percent of unwanted pregnancies increased.



## Family Planning - Pregnancy Intention

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### Unintended Pregnancies by Maternal Characteristics, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> Percent (s.e.)	<b>1998</b> Percent (s.e.)
<b>Total</b>	50.0 (2.2)	45.8 (2.2)
<b>Race</b>		
Black	66.3 (3.5)	64.4 (3.5)
White	41.5 (2.7)	34.9 (2.6)
<b>Age</b>		
Less than 18	86.9 (4.1)	80.1 (6.8)
18-19	70.5 (6.1)	72.7 (6.4)
20-24	62.2 (4.9)	55.0 (4.3)
25-29	33.8 (3.8)	38.6 (4.0)
30-34	33.7 (4.7)	27.6 (4.2)
35+	38.2 (6.3)	24.2 (5.9)
<b>Education</b>		
Less than High School	66.6 (4.7)	67.4 (4.8)
High School	52.6 (3.8)	50.6 (3.8)
More than High School	39.5 (3.2)	30.8 (3.0)
<b>Marital status</b>		
Married	33.4 (2.5)	28.0 (2.4)
Other	76.6 (3.2)	74.1 (3.2)
<b>Medicaid status</b>		
Yes	67.0 (2.8)	63.3 (2.9)
No	31.5 (2.9)	25.8 (2.7)
<b>Prenatal Care</b>		
Inadequate	87.1 (5.4)	75.2 (8.4)
Intermediate	60.0 (4.8)	49.4 (5.1)
Adequate	44.3 (2.5)	42.2 (2.5)
<b>Birthweight</b>		
VLBW (<1500)	51.0 (1.5)	52.4 (1.4)
MLBW (1500-1499 g)	55.4 (2.5)	56.9 (2.5)
NBW (2500+ g)	49.6 (2.4)	44.9 (2.4)

## Family Planning - Pregnancy Intention

### Contraceptive Behavior among Women with Unintended Pregnancies, 1997-1998

<b>Maternal Characteristics</b>	<b>Non-use*</b> Percent (s.e.)	<b>Disuse*</b> Percent (s.e.)	<b>Failed Use*</b> Percent (s.e.)
<b>Total</b>	23.2 (1.9)	33.7 (2.2)	43.2 (2.3)
<b>Race</b>			
Black	18.4 (2.5)	36.2 (3.2)	45.3 (3.3)
White	27.7 (2.8)	31.2 (2.9)	41.1 (3.1)
<b>Age</b>			
Less than 18	21.5 (5.2)	33.6 (6.3)	44.9 (6.5)
18-24	24.6 (2.9)	31.7 (3.2)	43.7 (3.4)
25-34	23.4 (3.3)	36.0 (3.7)	40.6 (3.8)
35-55	14.5 (5.3)	34.7 (8.2)	50.8 (8.4)
<b>Education</b>			
Less than HS	26.9 (3.9)	34.0 (4.3)	39.1 (4.3)
High School	22.9 (3.1)	32.0 (3.5)	45.1 (3.8)
More than HS	19.9 (3.2)	33.4 (3.7)	46.7 (3.9)
<b>Marital status</b>			
Married	24.5 (3.0)	30.9 (3.2)	44.6 (3.4)
Other	22.3 (2.5)	35.3 (2.9)	42.4 (3.0)
<b>Medicaid status</b>			
Yes	24.0 (2.3)	33.6 (2.6)	42.4 (2.7)
No	21.1 (3.3)	33.5 (3.9)	45.4 (4.1)

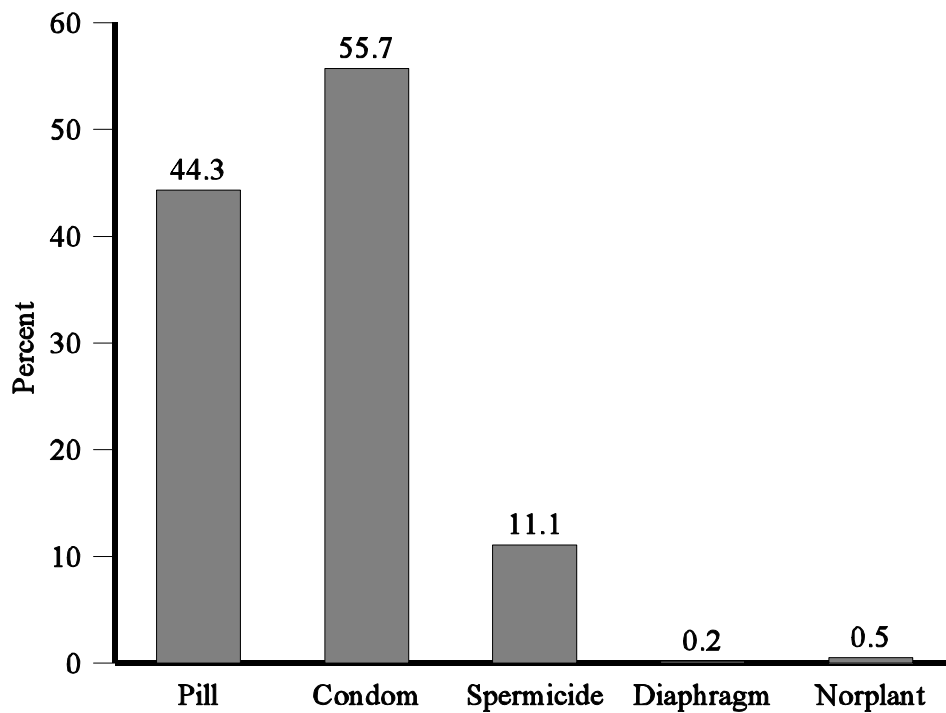
**\*Definitions:**

Failed Use: Woman was using contraception in the three months before she got pregnant AND when she got pregnant.

Disuse: Woman was using contraception in the three months before she got pregnant, BUT NOT when she got pregnant.

Non-use: Woman was not using contraception in the three months before she got pregnant OR when she got pregnant.

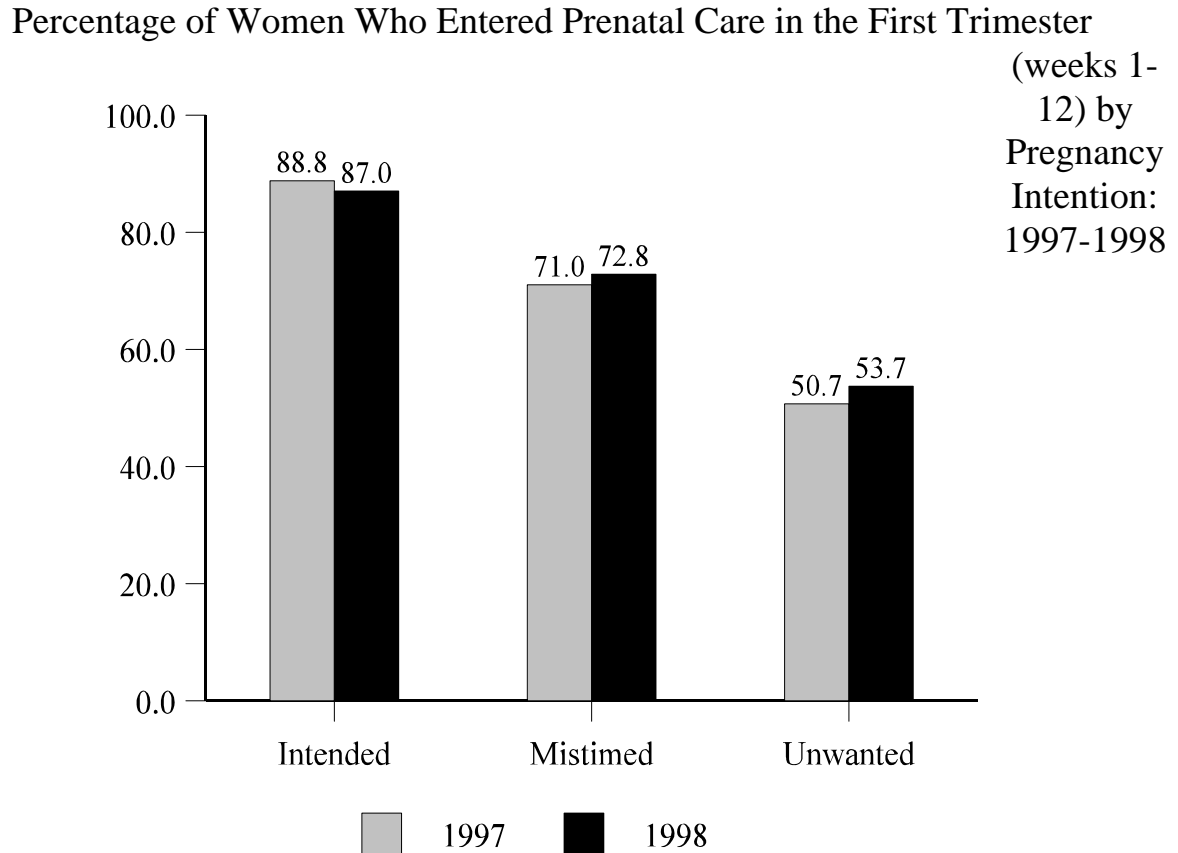
Methods of Contraception Among Women Who Reported Failures in Use, 1997-1998



In 1997 and 1998, the majority of women who experienced failures in their contraceptive method used condoms (55.7% in 1998) and the pill (44.3% in 1998).

## Family Planning - Pregnancy Intention

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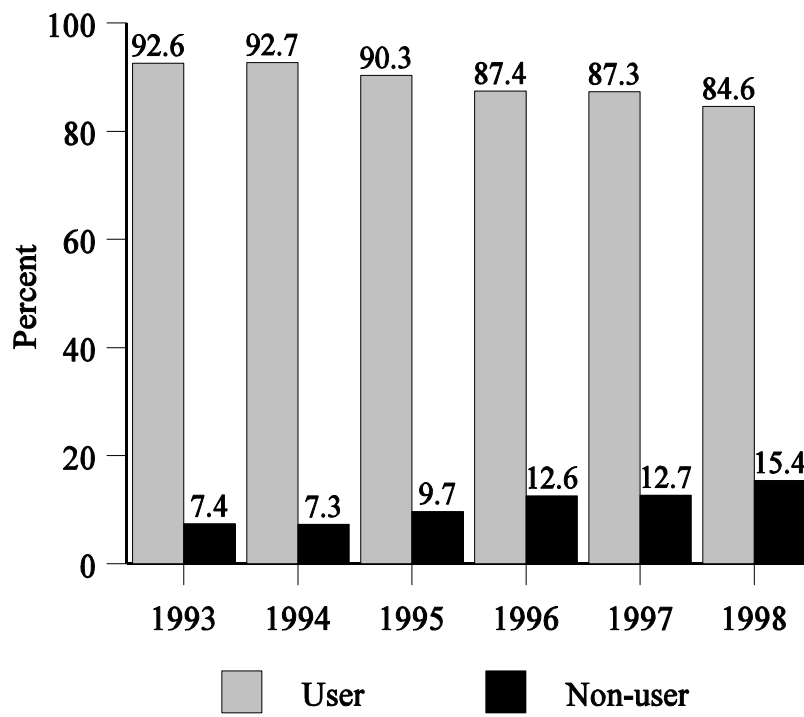


In 1997 and 1998, a much greater proportion of women who wanted their pregnancies then or sooner received prenatal care during the first trimester compared to women with unintended pregnancies.

## Family Planning - Postpartum Contraception

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Postpartum Birth Control Methods, 1993-1998

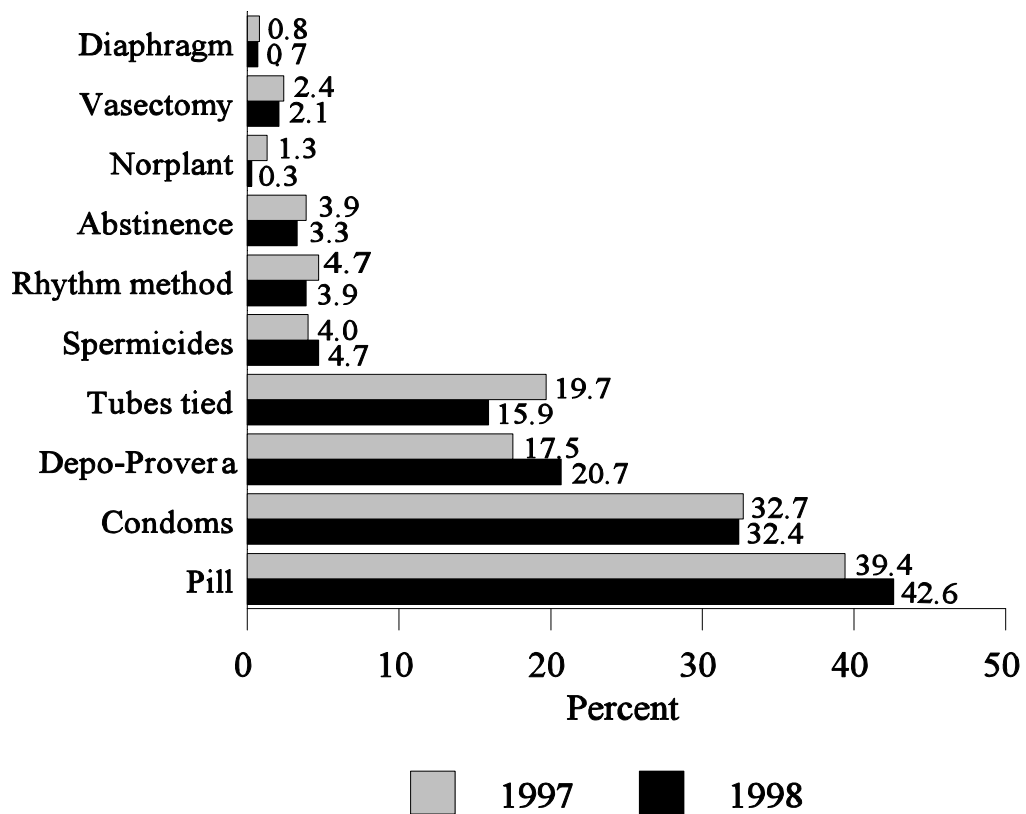


The proportion of women not using contraception after delivery increased significantly from 7.4% in 1993 to 15.4% in 1998.

## Family Planning - Postpartum Contraception

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Postpartum Birth Control Methods\*, 1997-1998



\*Contraceptive methods are not mutually exclusive.

## Smoking Fact Sheet

Between the years of 1993-1998...

The percentage of women smoking during the last trimester of pregnancy fell from 15.9% in 1993 to its lowest in 1997 (12.5%), then increased to 15.1% in 1998.

The percentage of women who quit smoking during pregnancy increased from 38.2% in 1993 to 47.9% in 1997, but decreased to 41.6% in 1998.

The percentage of women quit smoking during pregnancy and remained as nonsmokers after the baby was born ranged from about 17% to 20%.

Between the years of 1997 and 1998...

The percentage of women who smoked during the last trimester increased overall, but decreased among mothers who were less than 18 years of age and greater than 34 years of age.

In 1998, women who reported smoking during the last trimester of pregnancy were more likely to...

- be white

- 18-24 years of age

- on Medicaid

- have less than a high school education and

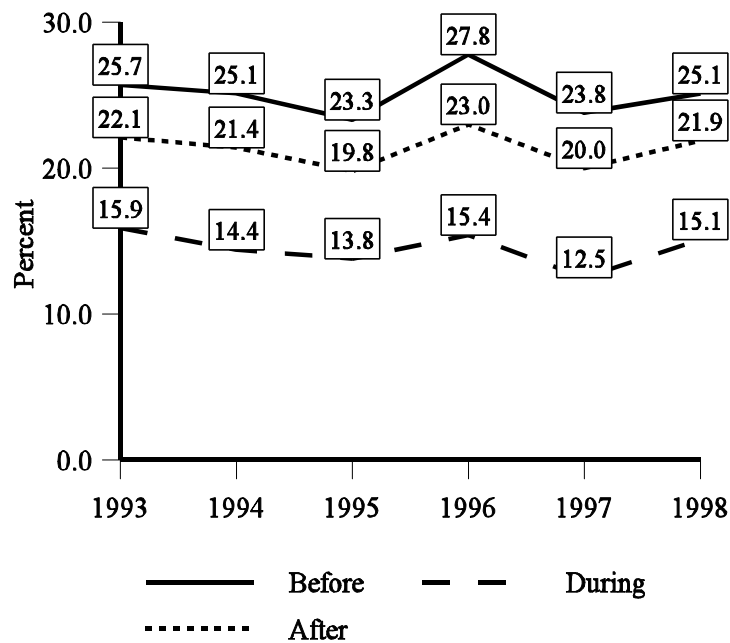
- have a LBW infant.

We still have not reached the Healthy People 2000 goal to increase abstinence from tobacco by pregnant women to at least 90%. In 1998, about 85% abstained from smoking during pregnancy.

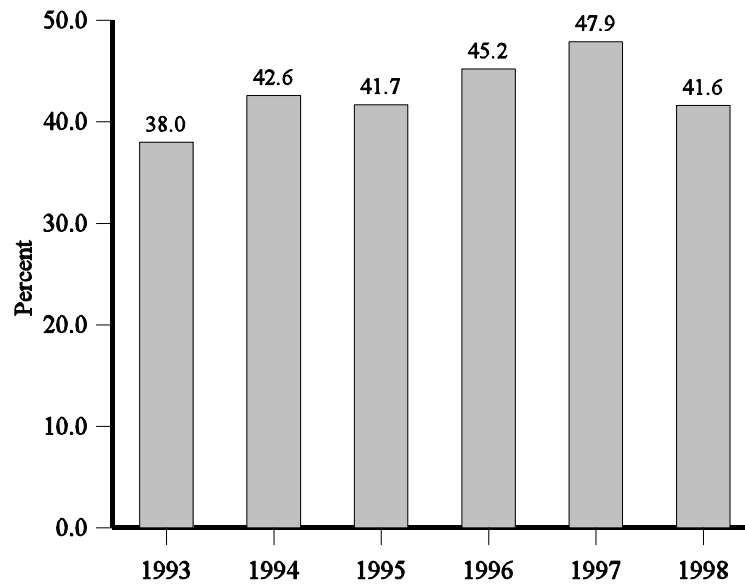
## Cigarette Use

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Proportion of Women Who Smoked Cigarettes 3 Months Before Pregnancy, During the Last Trimester, and During the 3-6 Months After Delivery, 1993-1998



Proportion of Smokers Who Quit While Pregnant, 1993-1998





## Cigarette Use - Before Pregnancy

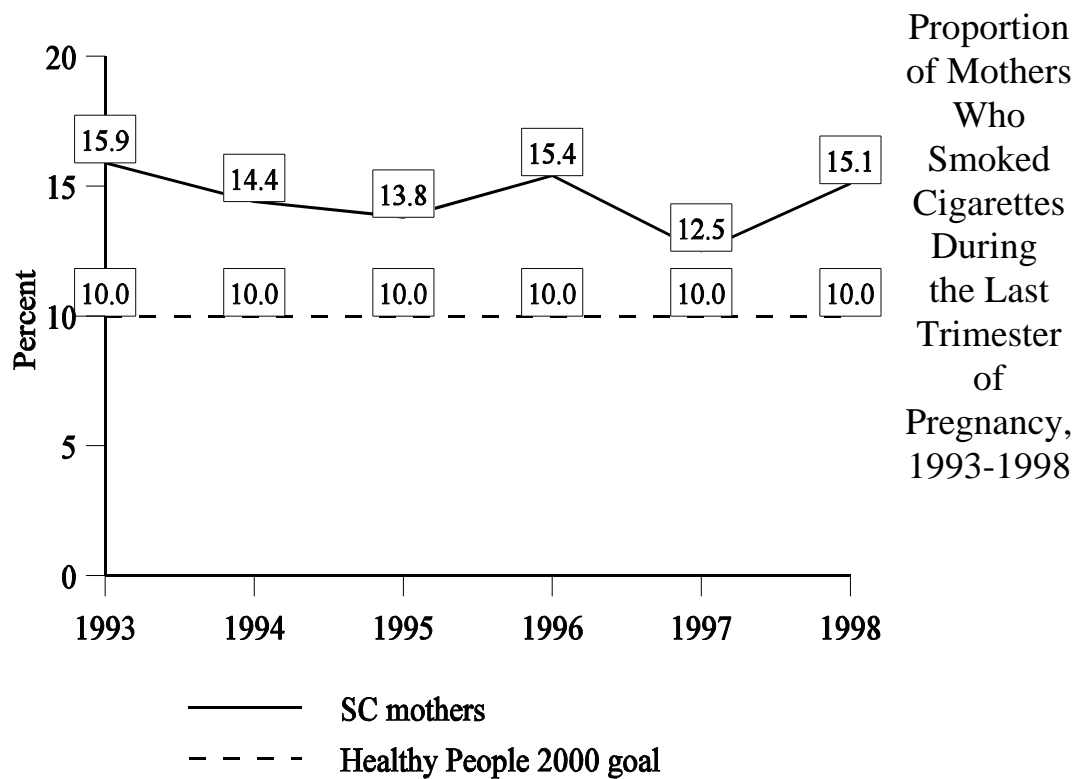
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### Characteristics of Women Who Smoked Cigarettes during the Three Months Before Pregnancy, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	23.8 (1.8)	25.1 (1.9)
<b>Race</b>		
Black	10.3 (2.2)	12.0 (2.3)
White	32.0 (2.5)	33.4 (2.5)
<b>Age</b>		
Less than 18	33.6 (7.5)	27.3 (7.3)
18-24	27.6 (3.4)	29.6 (3.3)
25-34	21.6 (2.5)	23.2 (2.6)
35-55	14.6 (4.3)	15.4 (4.4)
<b>Education</b>		
Less than High School	42.9 (4.9)	39.3 (5.0)
High School	26.1 (3.2)	29.5 (3.2)
More than High School	12.6 (2.0)	14.9 (2.3)
<b>Marital status</b>		
Married	20.4 (2.1)	22.3 (2.2)
Other	29.0 (3.3)	29.4 (3.2)
<b>Medicaid</b>		
Yes	30.7 (2.8)	30.6 (2.7)
No	16.1 (2.2)	18.5 (2.4)
<b>Birthweight</b>		
LBW (<2500 g)	28.2 (1.8)	28.9 (1.9)
NBW (2500+ g)	23.4 (2.0)	24.8 (2.0)

## Cigarette Use - Last trimester

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The proportion of women who smoked during the last trimester increased from 12.5% in 1997 to 15.1% in 1998.

In 1998, women who...

- were white
- had a less than high school or high school education
- were on Medicaid and
- delivered a LBW baby

were more likely to smoke during the last trimester of pregnancy compared to women without these characteristics.

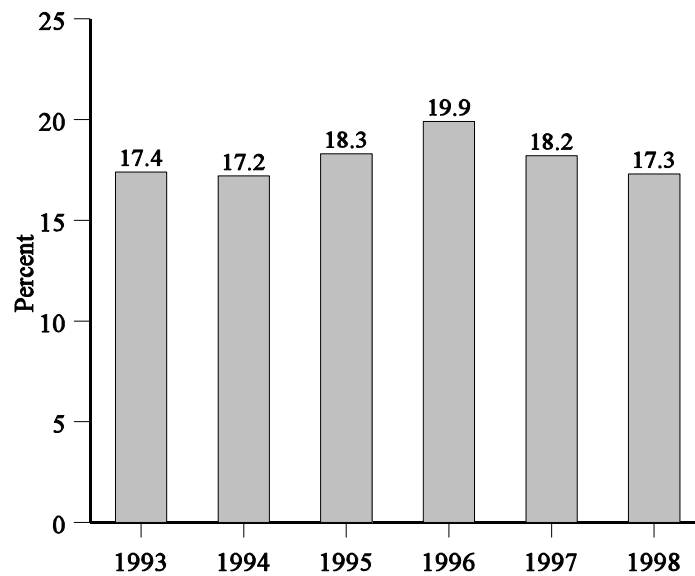
## Cigarette Use - Last Trimester

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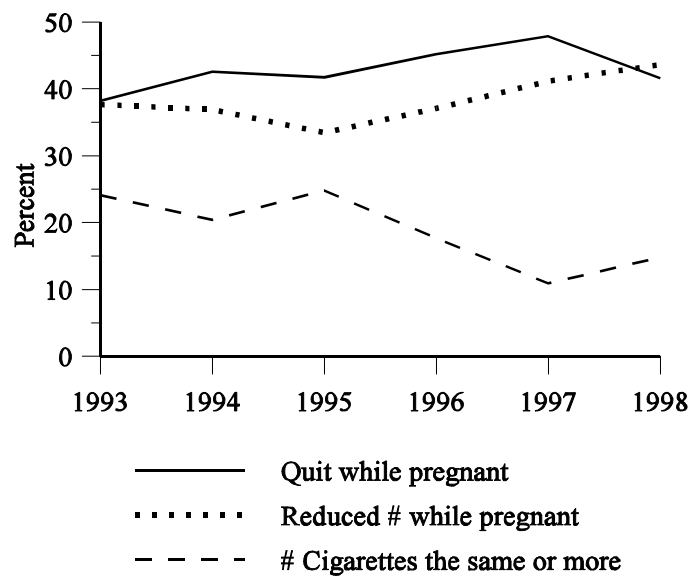
### Characteristics of Mothers Who Smoked Cigarettes during the Last Trimester of Pregnancy, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	12.5 (1.4)	15.1 (1.5)
<b>Race</b>		
Black	6.5 (1.8)	7.5 (1.9)
White	16.3 (2.0)	20.0 (2.2)
<b>Age</b>		
Less than 18	18.7 (6.1)	16.9 (6.2)
18-24	10.9 (2.4)	18.0 (2.8)
25-34	13.1 (2.1)	13.7 (2.1)
35-55	11.1 (3.8)	8.6 (3.1)
<b>Education</b>		
Less than High School	25.4 (4.3)	30.4 (4.7)
High School	13.6 (2.5)	15.1 (2.5)
More than High School	5.5 (1.3)	7.1 (1.7)
<b>Marital status</b>		
Married	9.5 (1.5)	11.4 (1.7)
Other	17.3 (2.7)	20.5 (2.9)
<b>Medicaid</b>		
Yes	18.2 (2.4)	20.7 (2.4)
No	6.3 (1.4)	8.2 (1.7)
<b>Birthweight</b>		
LBW (<2500 g)	19.4 (1.6)	20.6 (1.7)
NBW (2500+ g)	11.9 (1.6)	14.6 (1.7)

Proportion of Smokers Who Quit Smoking While Pregnant and Remained as Non-Smokers After Delivery, 1993-1998



Smoking Behavior During Pregnancy among Women Who Were Smokers before Pregnancy, 1993-1998



## Alcohol Consumption Fact Sheet

Between the years of 1993-1998...

The percent of women drinking during the last trimester of pregnancy decreased from 6.3% in 1993 to 3.6% in 1997, and remained fairly steady in 1998 (3.7%).

The percent of women drinking in the three months before pregnancy fluctuated, but has remained close to 40.0 % since 1993.

In 1998, of women who drank in the last three months of pregnancy...

- 94.1% drank less than 3 drinks per week;

- 5.9 % drank 3-7 drinks per week; and

- none of the women drank more than 7 drinks per week.

In 1998, women who drank during the last trimester were more likely to be...

- black

- 25-34 years of age

- have a less than high school education and

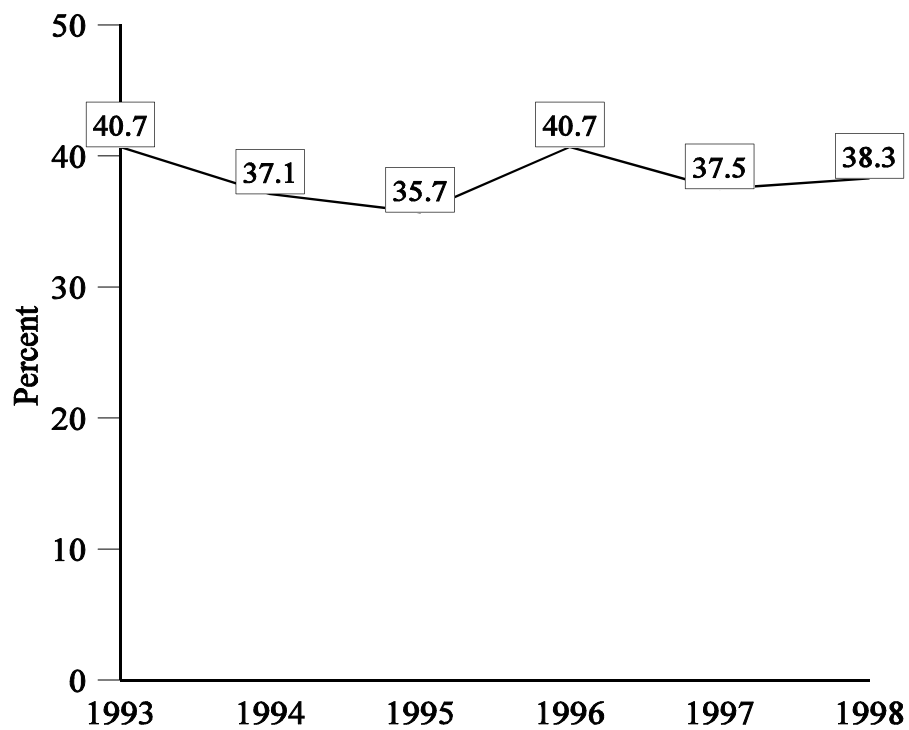
- NOT on Medicaid.

The Healthy People 2000 goal is to reduce the percentage of drinking among pregnant women to 5.0%. Based on the last trimester drinking status, South Carolina continues to surpass this goal (3.7% in the last trimester in 1998).

## Alcohol Consumption

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Proportion of Women Who Drank During the Three Months  
Before Pregnancy, 1993-1998



Women who...

were white

over 18 years of age

married

had a greater than high school or high school education and

not on Medicaid...

were more likely to report drinking during the three months prior to pregnancy.

## Alcohol Consumption

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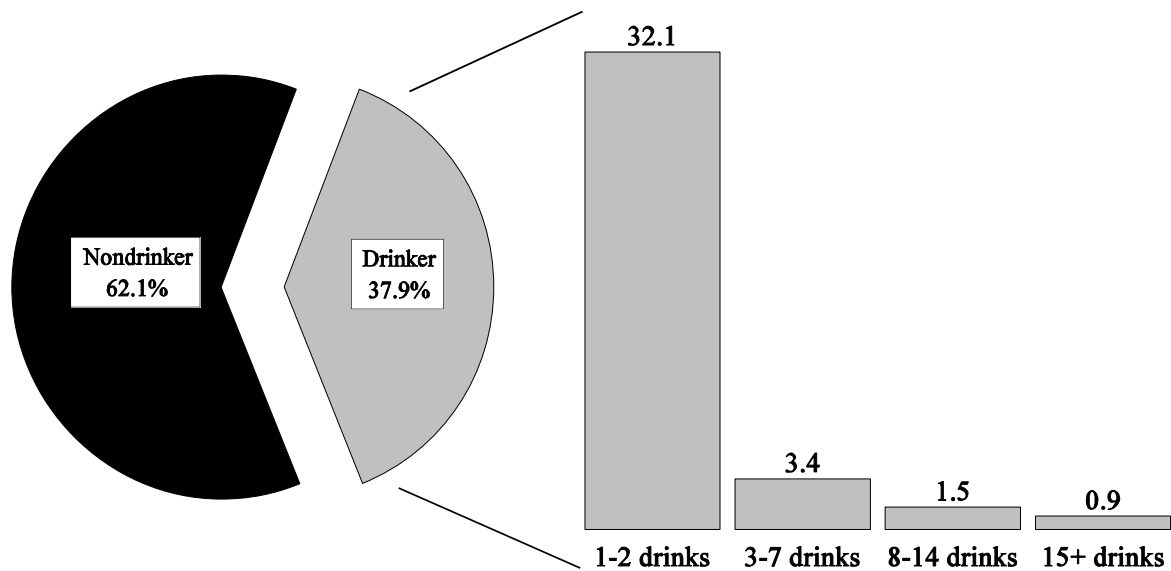
### Characteristics of Mothers Who Drank Alcohol During the Three Months Before Pregnancy, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	37.5 (2.1)	38.3 (2.0)
<b>Race</b>		
Black	22.0 (3.1)	25.3 (3.0)
White	47.0 (2.7)	46.5 (2.6)
<b>Age</b>		
Less than 18	17.4 (6.1)	16.2 (5.9)
18-24	34.8 (3.6)	35.0 (3.4)
25-34	43.0 (3.0)	43.0 (3.0)
35-55	35.7 (5.8)	44.0 (6.6)
<b>Education</b>		
Less than High School	32.4 (4.6)	25.3 (4.4)
High School	33.3 (3.5)	33.8 (3.4)
More than High School	43.5 (3.1)	46.8 (3.2)
<b>Marital status</b>		
Married	40.4 (2.6)	41.2 (2.6)
Other	33.0 (3.4)	34.0 (3.3)
<b>Medicaid</b>		
Yes	33.4 (2.9)	34.5 (2.8)
No	42.0 (2.9)	42.9 (3.0)
<b>Birthweight</b>		
LBW (<2500 g)	33.9 (1.9)	31.9 (1.2)
NBW (2500+ g)	37.8 (2.2)	35.5 (2.3)

## Alcohol Consumption

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Number of Drinks Consumed Per Week during the  
Three Months Before Pregnancy, 1997-1998



During the years of 1997-1998, only 37.9% of women drank in the three months before they became pregnant.

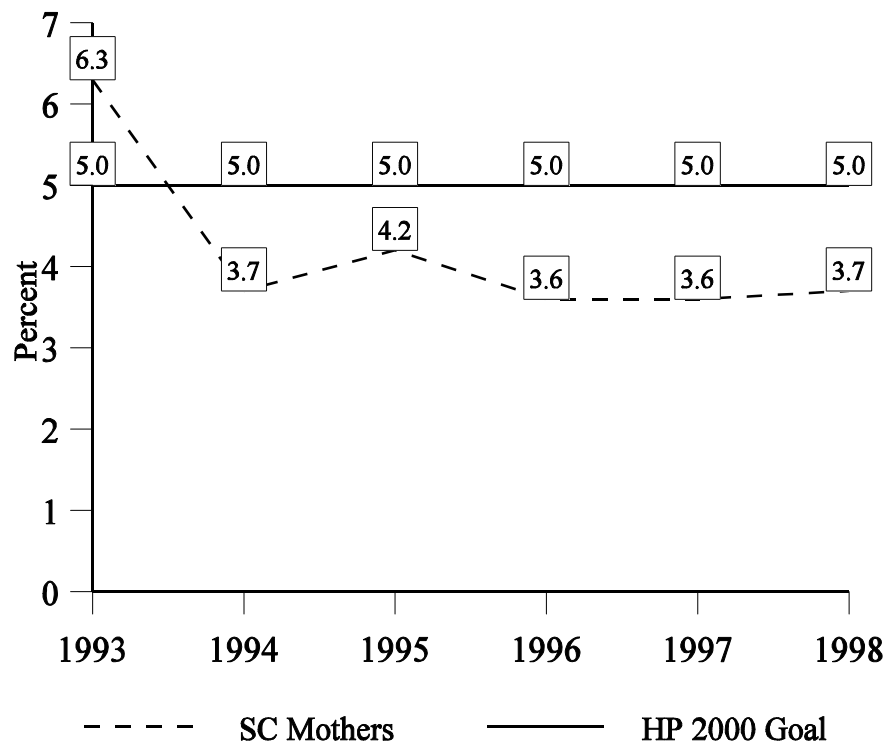
During these same years, 5.9% of women drank three or more drinks per week during the three months before they became pregnant.



## Alcohol Consumption

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Percent of Mothers Who Drank Alcohol during the  
Last Trimester of Pregnancy, 1993-1998



The percentage of women who reported drinking alcohol in the last trimester of pregnancy fell from 6.3% in 1993 to 3.7% in 1994, and has remained fairly steady since 1996 (3.7% in 1998).

In 1998, almost all women who drank during the last trimester drank two or fewer drinks per week (94.1%).

Characteristics of Mothers Who Drank During the  
Last Trimester of Pregnancy, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	3.6 (0.8)	3.7 (0.8)
<b>Race</b>		
Black	1.4 (0.8)	4.4 (1.6)
White	5.0 (1.1)	3.2 (0.9)
<b>Age</b>		
Less than 18	0.0 (0.0)	0.1 (0.1)
18-24	2.5 (1.1)	2.8 (1.3)
25-34	4.4 (1.2)	4.9 (1.4)
35-55	6.4 (2.7)	3.4 (2.2)
<b>Education</b>		
Less than High School	1.3 (1.0)	6.1 (2.7)
High School	3.2 (1.2)	1.8 (0.9)
More than High School	5.2 (1.4)	4.2 (1.3)
<b>Marital status</b>		
Married	4.9 (1.1)	3.4 (0.9)
Other	1.7 (0.8)	4.0 (1.5)
<b>Medicaid</b>		
Yes	2.8 (0.9)	3.1 (1.1)
No	4.6 (1.2)	4.4 (1.3)
<b>Birthweight</b>		
LBW (<2500 g)	4.0 (0.8)	4.3 (0.6)
NBW (2500+ g)	3.6 (0.8)	3.5 (1.0)

## Stress and Social Support Fact Sheet

In 1998...

Almost 24% of women experienced 3 or more stressful life events in the 12 months before delivery.

A greater proportion of black women experienced all of the stressful life events listed on the survey, with the exception of moving to a new address. Especially large differences were noted in the following areas:

- Arguing more with husband/partner (45.3% black vs. 27.5% white)

- Bills they could not pay (34.6% black vs. 24.4% white)

- Divorce/separation from partner (18% black vs. 9.7% white)

- Mom or husband/partner went to jail (11.1% black vs. 3.8% white)

Most common stressful life events experienced by both black and white women included...

- Arguing more with husband/partner

- Moving to a new address

- Having bills she could not pay

- Having a family member hospitalized and

- Someone close to the mother died.

Women who were...

- black

- 18-24 years of age

- had a less than high school education

- unmarried and

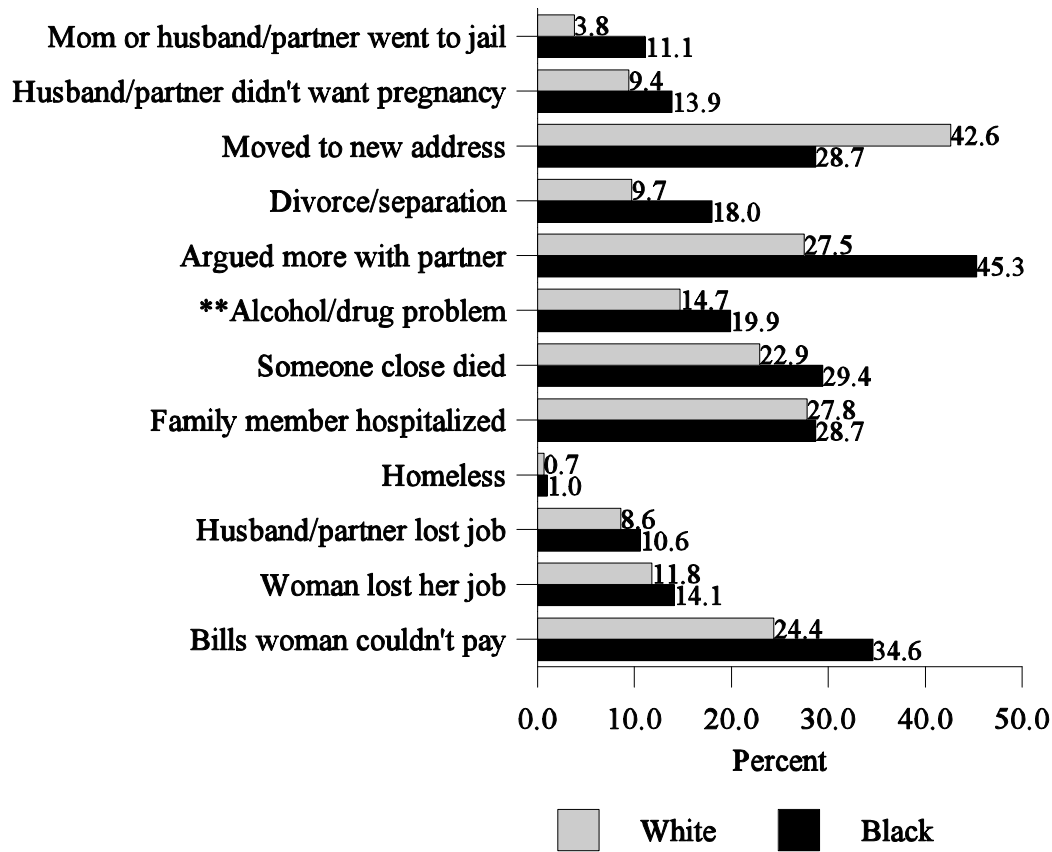
- on Medicaid

were more likely to experience 3 or more stressful life events in the 12 months before delivery.

White women had a stronger social support system than black women in both the kinds of help available and who would have helped. Most women reported their parents or husbands/partners would help them had they needed it.

## Stressful Life Events

### Proportion of Women Who Experienced Stressful Life Events in the Twelve Months Prior to Delivery, 1998



\*\*Someone close to the woman had a drinking/drug problem.

Women who were...

black

18-24 years of age

less than high school educated

unmarried and

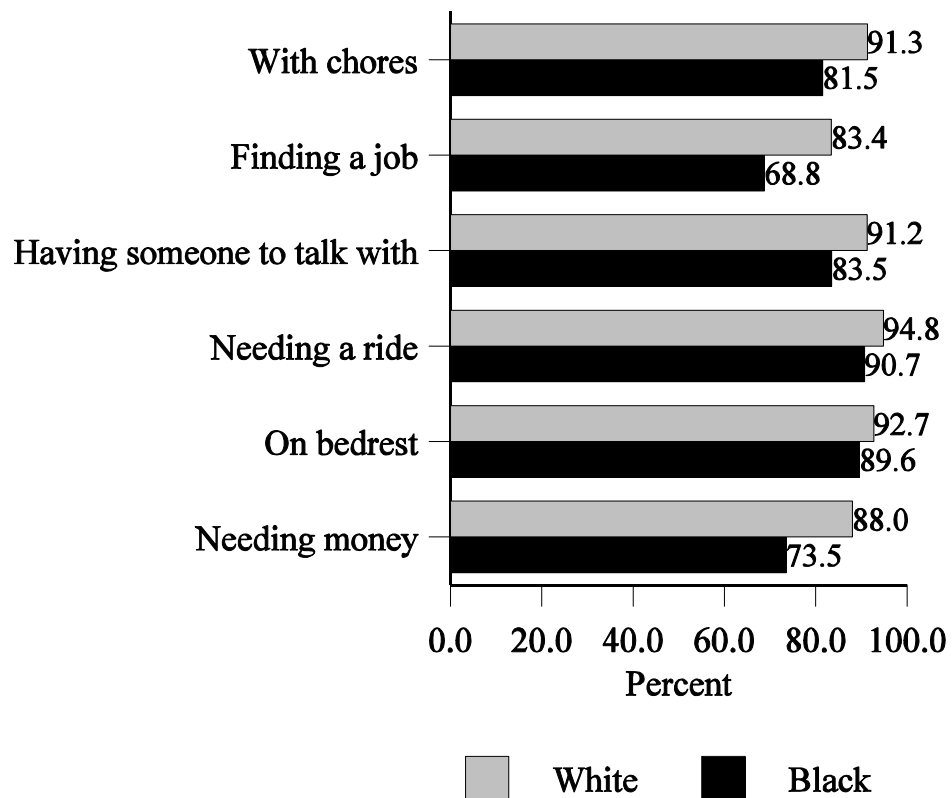
on Medicaid...

were more likely to experience 3 or more stressful life events during the 12 months before delivery compared to women without these characteristics.

Characteristics of Women Experiencing  
High Levels of Stress, 1997-1998

Maternal Characteristics	High Stress Levels (more than 3 stressful life events)	
	1997 percent (s.e.)	1998 percent (s.e.)
<b>Total</b>	26.0 (1.9)	23.6 (1.9)
<b>Race</b>		
Black	28.0 (3.3)	28.7 (3.2)
White	25.2 (2.4)	20.4 (2.2)
<b>Age</b>		
Less than 18	32.9 (7.3)	22.7 (6.7)
18-24	38.9 (3.7)	32.3 (3.4)
25-34	19.9 (2.5)	17.9 (2.4)
35-55	7.0 (2.7)	17.2 (5.1)
<b>Education</b>		
Less than High School	40.9 (4.8)	35.9 (4.9)
High School	29.0 (3.4)	26.7 (3.2)
More than High School	15.1 (2.2)	14.5 (2.3)
<b>Marital status</b>		
Married	16.9 (2.0)	17.5 (2.0)
Other	40.1 (3.5)	32.1 (3.3)
<b>Medicaid</b>		
Yes	40.4 (3.0)	32.7 (2.8)
No	10.0 (1.8)	12.0 (2.0)
<b>Birthweight</b>		
LBW (<2500 g)	31.3 (1.9)	28.4 (1.8)
NBW (2500+ g)	25.5 (2.1)	23.0 (2.0)

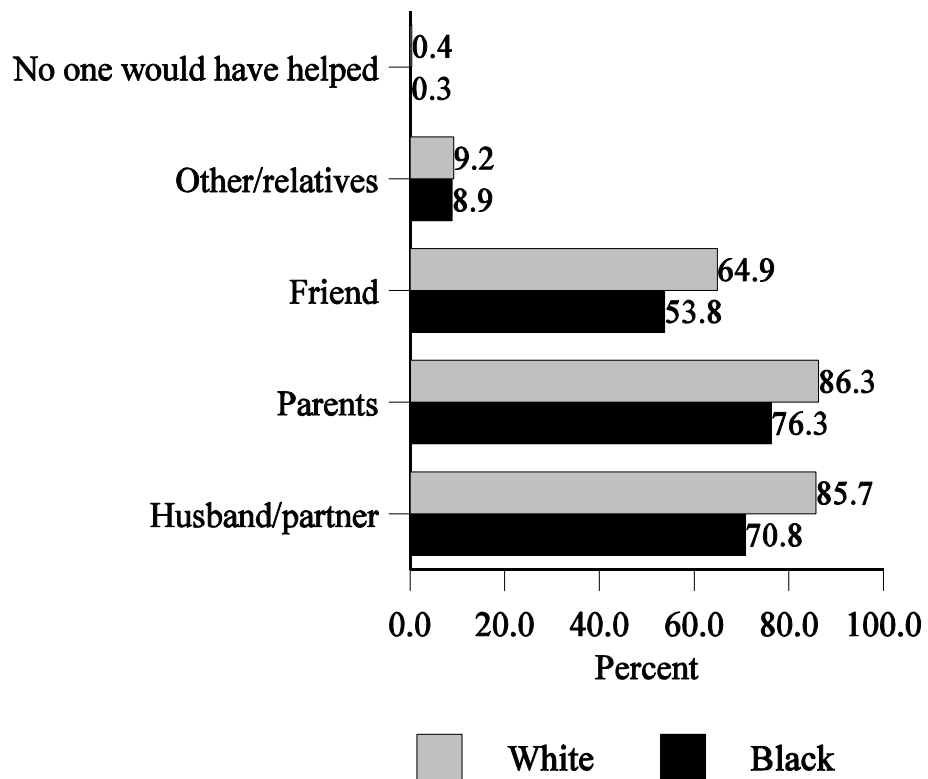
Proportion of Women Who Would Have Had  
Help if Needed During Pregnancy, 1998



In all areas, more white women would have had help if needed during their pregnancy. This is especially true in the areas of...

Needing money  
Finding a job  
Helping with chores and  
Having someone to talk with.

Sources of Help During Pregnancy, 1998



In 1998, the top three sources of help among both black and white women were...

Parents  
Husband or partner and  
Friends.

## Physical Abuse Fact Sheet

In 1998...

8.0% of women were physically abused by someone before they became pregnant and 4.7% of women were physically abused by someone during their pregnancy.

Of women who were physically abused during pregnancy in 1998...

18.5% were physically abused **more often** during pregnancy than before pregnancy.

34.0% were physically abused **less often** during pregnancy than before pregnancy.

22.8% were physically abused **about the same** during pregnancy and before pregnancy.

24.7% were **not physically abused until** they became pregnant.

The majority of women who were victims of physical abuse before and/or during pregnancy, were abused by their husband or partner. The second most common source of physical abuse was a family member.

In 1998, women who reported partner abuse during pregnancy were more likely to be...

- black
- teenagers
- unmarried
- have a high school education and on Medicaid.

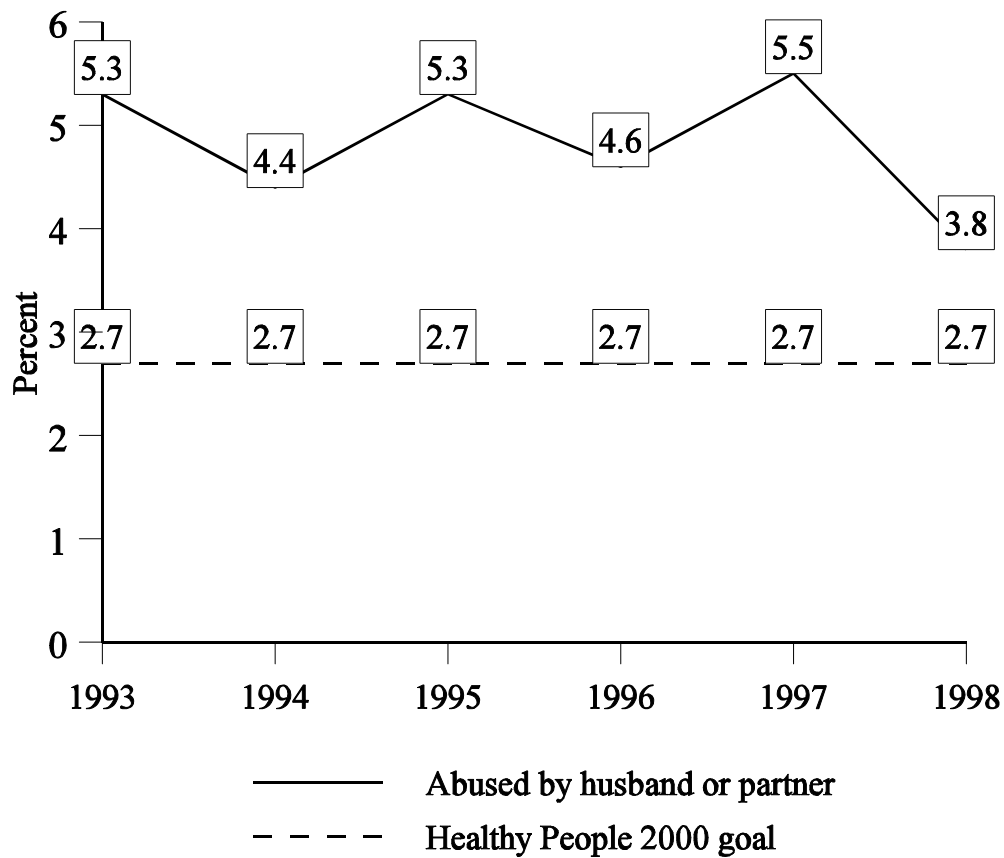
During the years of 1993-1997, 4.4% to 5.5% of women delivering liveborn infants were physically abused during pregnancy by their husband or partner. In 1998, the rate of partner abuse during pregnancy in SC **decreased** to 3.8%.



## Physical Abuse by Husband or Partner

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Percent of Women Who Were Physically Abused by Husband/Partner  
During Pregnancy, 1993-1998



Between the years of 1993 and 1997, the rate of physical abuse by husband or partner during the pregnancy fluctuated between 4.4% and 5.5%, and dropped to a low of 3.8% in 1998.

## Physical Abuse by Husband or Partner

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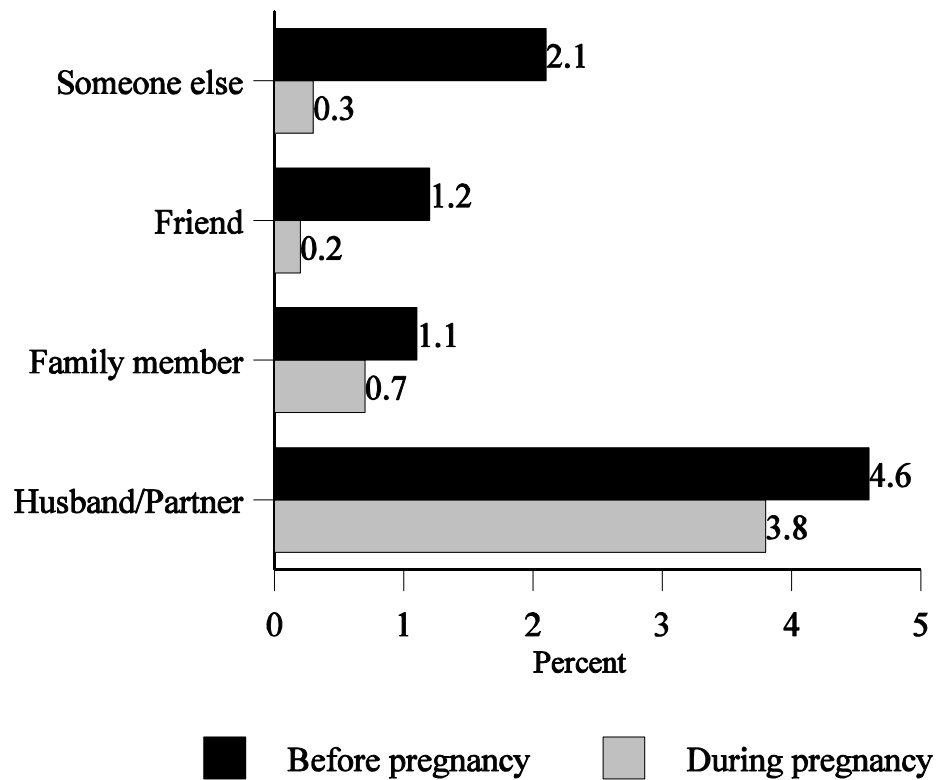
### Characteristics of Women Who Were Physically Abused during Pregnancy by Husband or Partner, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	5.5 (1.0)	3.8 (0.8)
<b>Race</b>		
Black	8.3 (2.1)	6.9 (1.8)
White	4.0 (1.1)	1.9 (0.7)
<b>Age</b>		
Less than 18	22.1 (6.8)	6.4 (4.0)
18-24	6.0 (1.8)	6.4 (1.8)
25-34	3.1 (1.1)	2.1 (0.8)
35-55	3.7 (2.4)	0.0 (0.0)
<b>Education</b>		
Less than High School	15.3 (3.6)	5.8 (2.4)
High School	3.6 (1.3)	5.9 (1.7)
More than High School	2.5 (1.0)	1.4 (0.7)
<b>Marital status</b>		
Married	2.1 (0.7)	3.2 (1.0)
Other	10.8 (2.2)	4.7 (1.4)
<b>Medicaid</b>		
Yes	9.4 (1.8)	5.7 (1.3)
No	1.3 (0.7)	1.5 (0.9)
<b>Birthweight</b>		
VLBW (<1500 g)	6.2 (0.7)	4.9 (0.6)
MLBW (1500-2499 g)	8.5 (1.4)	4.2 (1.0)
NBW (2500+ g)	5.3 (1.1)	3.7 (0.9)

## Physical Abuse - Perpetrator

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Physical Abuse Before and During Pregnancy  
by Perpetrator, 1998



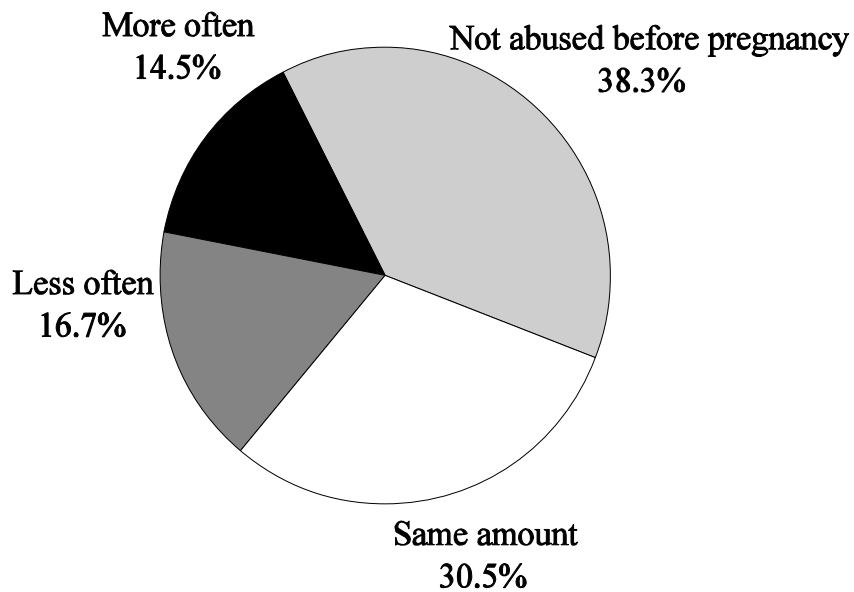
In 1998, the majority of women who were physically abused before and/or during pregnancy were abused by their partner or spouse.

In 1998, a larger proportion of women were physically abused before pregnancy than during pregnancy, by all perpetrators.

## Physical Abuse - Frequency

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Relative Frequency of Physical Abuse  
During Pregnancy vs. Before Pregnancy\*, 1998



\*All women represented in this graph were physically abused during pregnancy, which is only 3.8% of all women. Women who were physically abused before pregnancy but not during pregnancy were not included. Almost 40% of women who were abused during pregnancy were not abused until they became pregnant.

# Maternal Health Fact Sheet

Between the years of 1993-1998...

The proportion of women hospitalized during pregnancy, before delivery, has remained fairly steady at about 20%.

The mean hospital stay for mothers decreased slightly from 2.5 nights in 1993 to 2.3 nights in 1997 and then back up to 2.5 nights in 1998.

Length of hospital stay did not vary by maternal characteristics.

In 1998, the top four reasons for hospitalization during pregnancy (other than delivery) were...

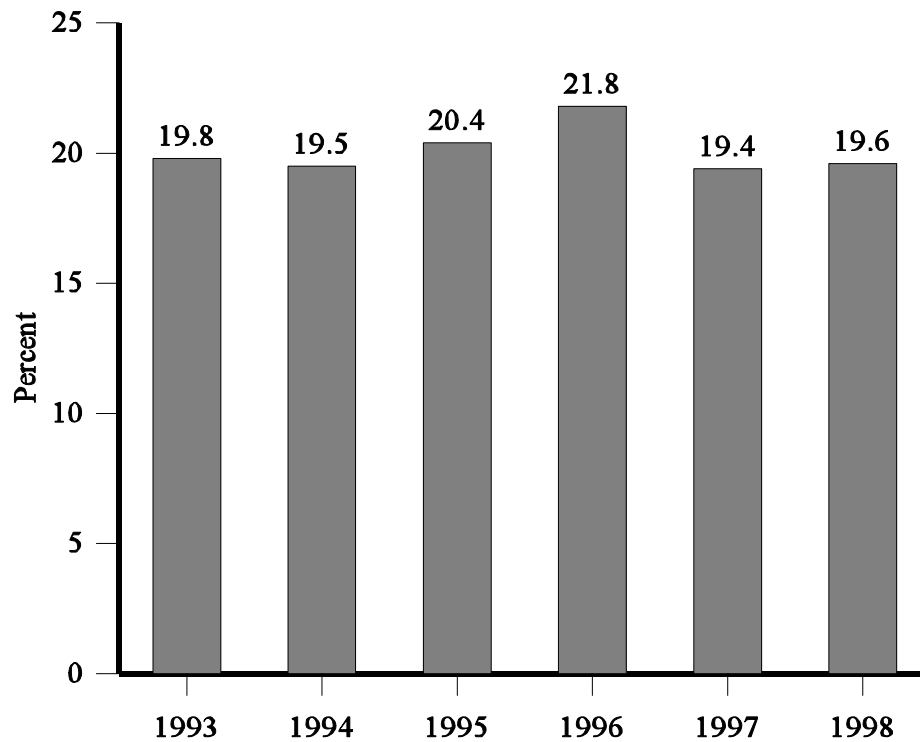
- premature labor
- other reasons (mostly car accidents)
- nausea/vomiting and
- vaginal bleeding.

In 1998, 8.2% of women were hospitalized two or more times before delivery.

## Maternal Health - Hospitalizations during Pregnancy

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Maternal Hospitalizations During Pregnancy, 1993-1998

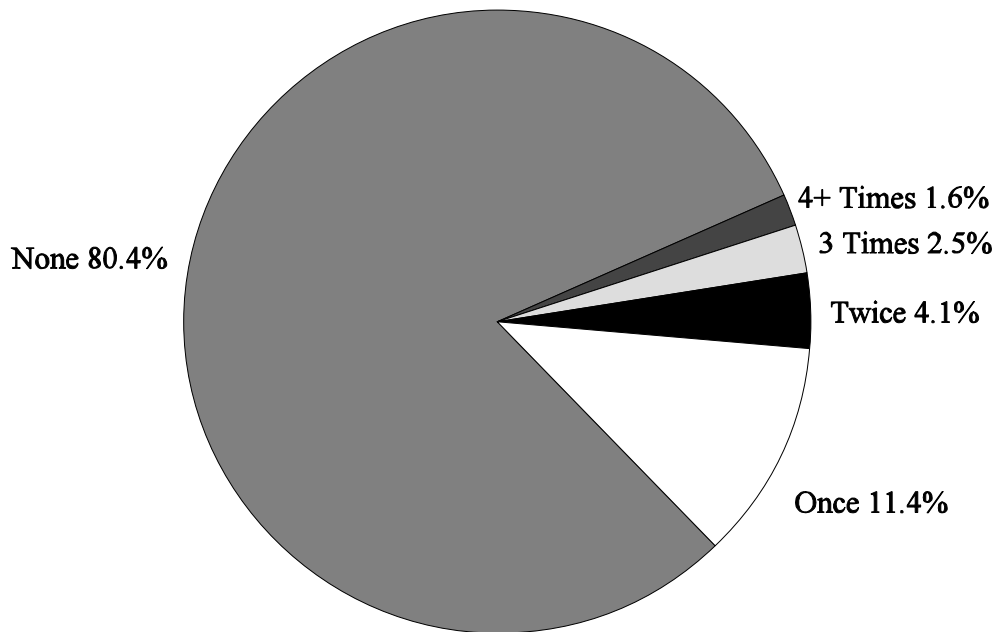


In 1998, 19.6% of women were hospitalized during pregnancy before giving birth.

## Maternal Health - Hospitalizations during Pregnancy

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Proportion of Women Who Were Hospitalized during Pregnancy, 1998

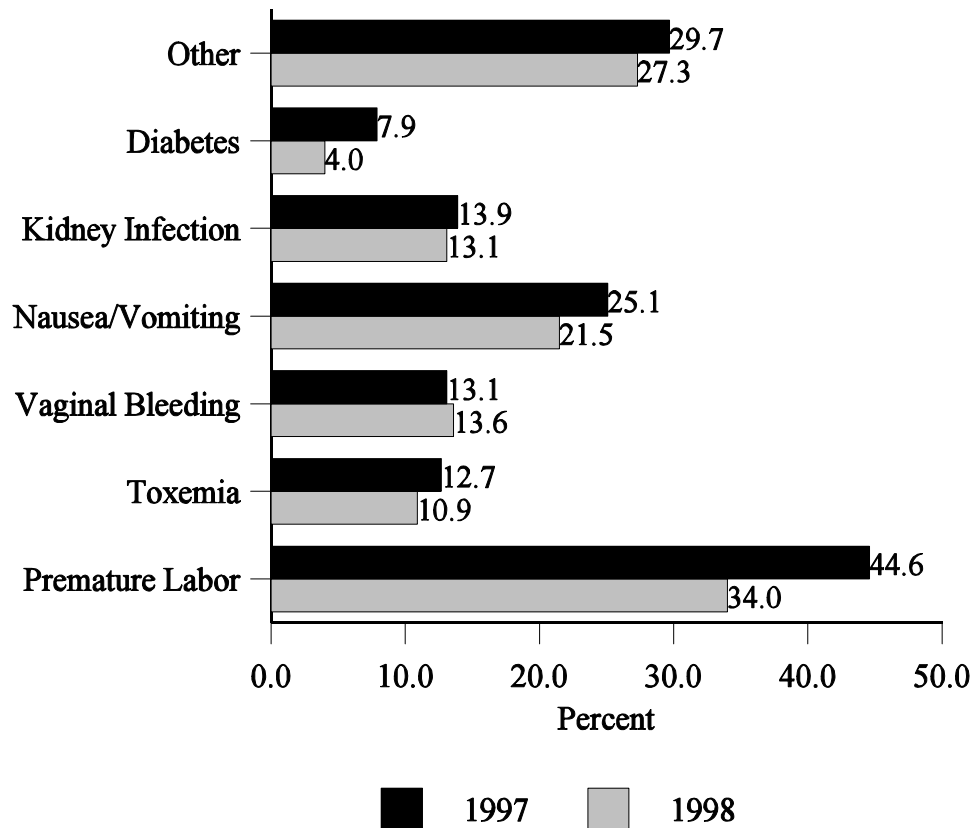


The majority of women who were hospitalized during pregnancy went only one time (11.4%), however, 8.2% were hospitalized two or more times.

## Maternal Health - Hospitalizations during Pregnancy

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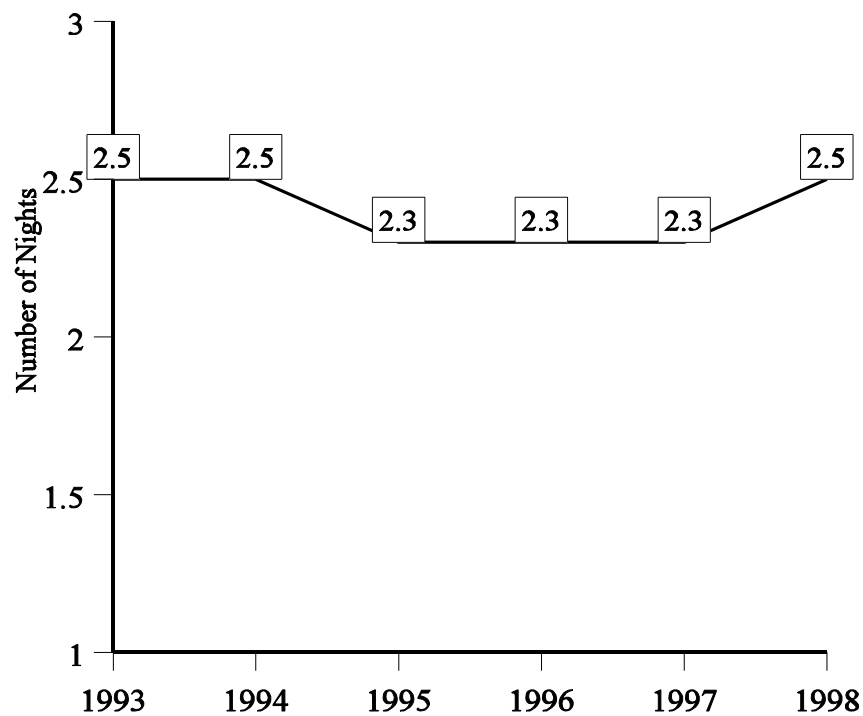
Reasons for Maternal Hospitalizations during Pregnancy, 1997-1998



In 1998, the most common reasons for hospitalization during pregnancy (besides delivery) were:  
premature labor (although there was a significant decrease from 1997)  
other reasons (mostly car accidents)  
nausea/vomiting.



Average Hospital Stay After Delivery (Number of Nights), 1993-1998



The average number of nights mothers spent in the hospital after delivery has fluctuated between 2.3 nights and 2.5 nights during the years 1993 to 1998.

In 1998, length of hospital stay did not differ significantly by maternal characteristics, however, the average number of nights did increase from the previous year.

## Infant Health Fact Sheet

Between the years of 1993-1998...

The average stay in the hospital after birth for all infants was 3.5 to 3.6 nights. Among infants who were not placed in an intensive care unit (ICU), the average stay was 2.1 to 2.4 nights.

The proportion of LBW infants that stayed in an ICU decreased from 54.6% in 1993 to a low of 42.4% in 1996, but jumped up to 46.4% in 1998.

Between 5.9% and 7.8% of NBW infants stayed in an Intensive Care Unit after delivery.

In 1998...

Babies of mothers who were on Medicaid, black, or unmarried were more likely to have longer hospital stays.

The private doctor and the emergency room were the most common sources of sick baby care.

The private doctor, the health department, and hospital clinic were the most common sources of well baby care.

98.3% of all women took their babies in for at least one well baby care visit within the first 4 to 6 months after delivery.

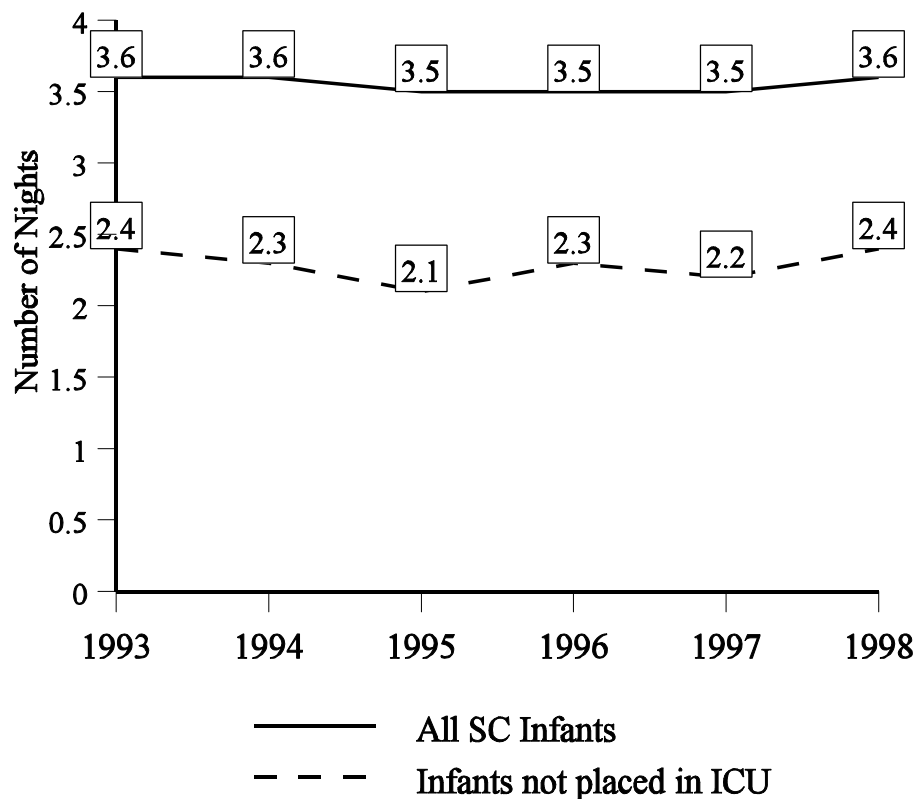
In 1998, 10.3% of infants were exposed to smoke on a daily basis, which was an improvement from 1997 (13.7%). And only 2.9% of infants were exposed to smoke for four or more hours a day.

The proportion of mothers putting their babies to sleep on their backs, the recommended sleeping position, increased greatly from 25.8% in 1996 to 44.5% in 1998.

## Infant Health - Hospital Stay

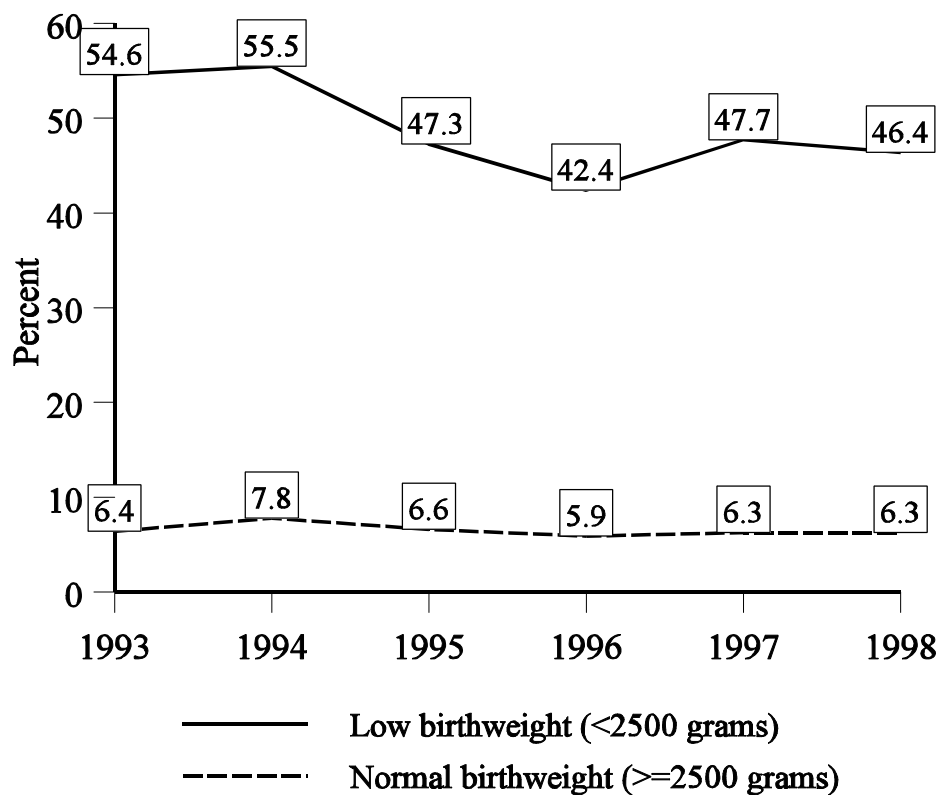
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Average Number of Nights Infants Stayed in Hospital After Delivery, 1993-1998



Among all infants, the average stay in the hospital after delivery remained very steady at 3.5 to 3.6 nights between the years of 1993 and 1998. Excluding infants who did not stay in the Intensive Care Unit, the average number of nights spent in the hospital ranged from 2.1 to 2.4 nights between the years of 1993 and 1998.

Proportion of Infants Who Stayed in an Intensive Care Unit  
by Birthweight, 1993-1998



From 1993 through 1998, the proportion of LBW infants who stayed in the intensive care unit (ICU) fluctuated between 55.5% and 42.4% .

The proportion of NBW infants who stayed in the ICU fluctuated between 7.8% and 5.9% during the years of 1993-1997.

## Infant Health - Hospital Stay

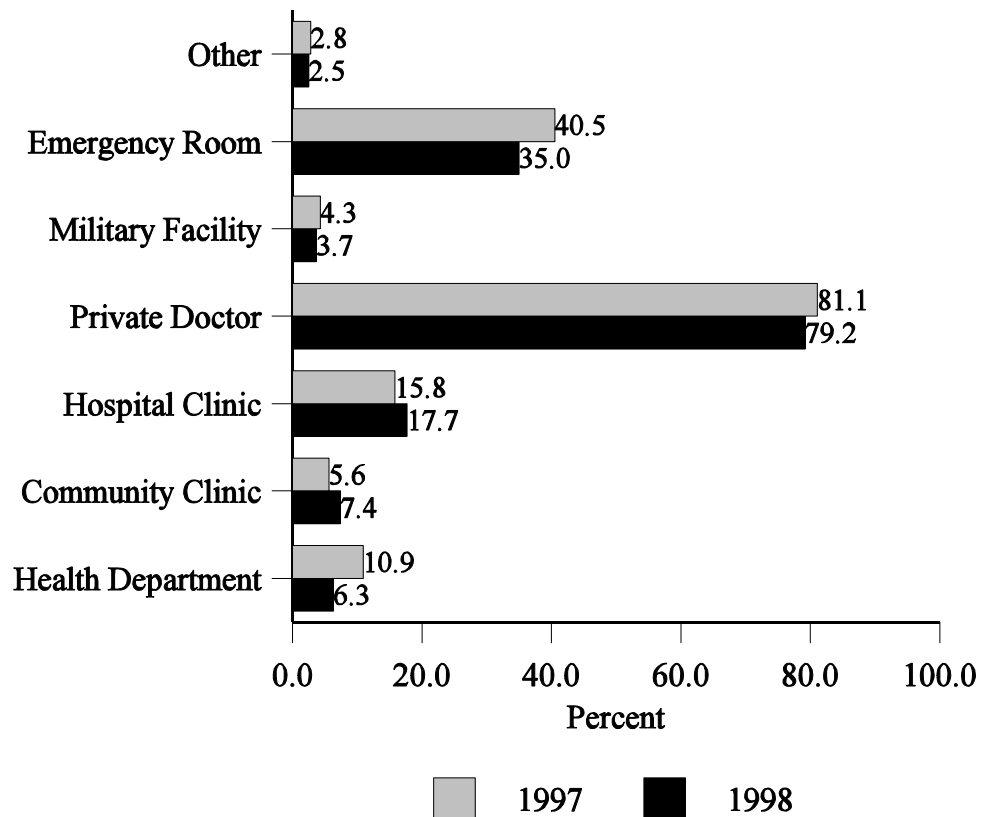
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### Average Number of Nights Infant Stayed in Hospital After Delivery by Maternal Characteristics, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> mean (s.e.)	<b>1998</b> mean (s.e.)
<b>Total</b>	3.5 (0.1)	3.6 (0.1)
<b>Race</b>		
Black	4.1 (0.2)	4.0 (0.2)
White	3.1 (0.1)	3.3 (0.1)
<b>Age</b>		
Less than 18	4.2 (0.6)	3.7 (0.3)
18-24	3.7 (0.2)	3.6 (0.2)
25-34	3.1 (0.1)	3.5 (0.1)
35-55	3.8 (0.3)	3.8 (0.3)
<b>Education</b>		
Less than High School	3.7 (0.3)	3.7 (0.2)
High School	3.6 (0.2)	3.8 (0.3)
More than High School	3.3 (0.1)	3.4 (0.1)
<b>Marital status</b>		
Married	3.2 (0.1)	3.4 (0.1)
Other	3.9 (0.2)	3.9 (0.2)
<b>Medicaid</b>		
Yes	3.8 (0.2)	3.9 (0.2)
No	3.0 (0.1)	3.2 (0.1)

Babies of mothers who were black, on Medicaid, and unmarried tended to have longer hospital stays in 1998 than babies of mothers who were white, not on Medicaid, and married.

Sources of Sick Baby Care, 1997-1998



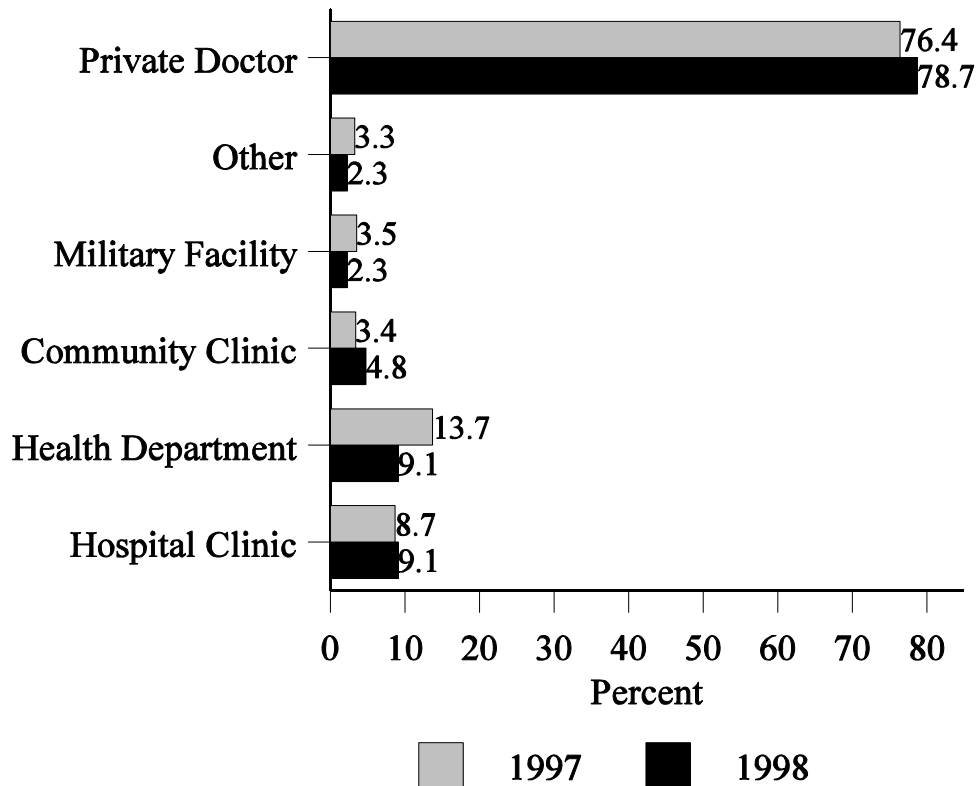
The top three sources of sick baby care in 1998 were...

private doctor (79.2%)  
emergency room (35.0%)  
hospital clinic (17.7%).

## Infant Health - Well Baby Care

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Sources of Well Baby Care, 1997-1998

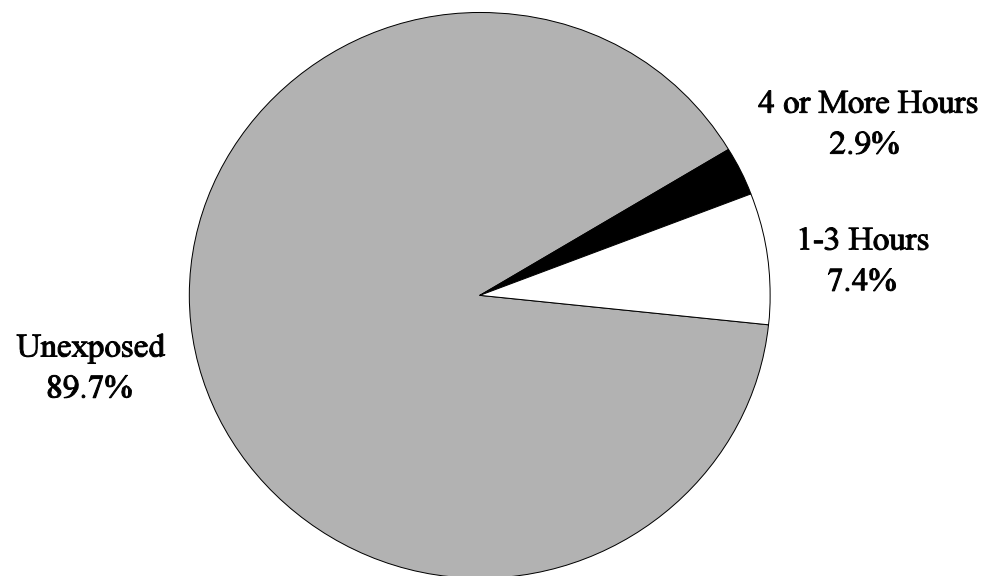


Top three sources of well baby care (WBC) in 1998 were...

private doctor (78.7%)  
health department (9.1%)  
hospital clinic (9.1%).

In 1998, only 1.7% of women had not taken their babies in for WBC within 6 months of delivery.

Proportion of Infants Exposed to Smoke Daily, 1998



The proportion of infants exposed to smoke on a daily basis decreased from 13.7% in 1997 to 10.3% in 1998.

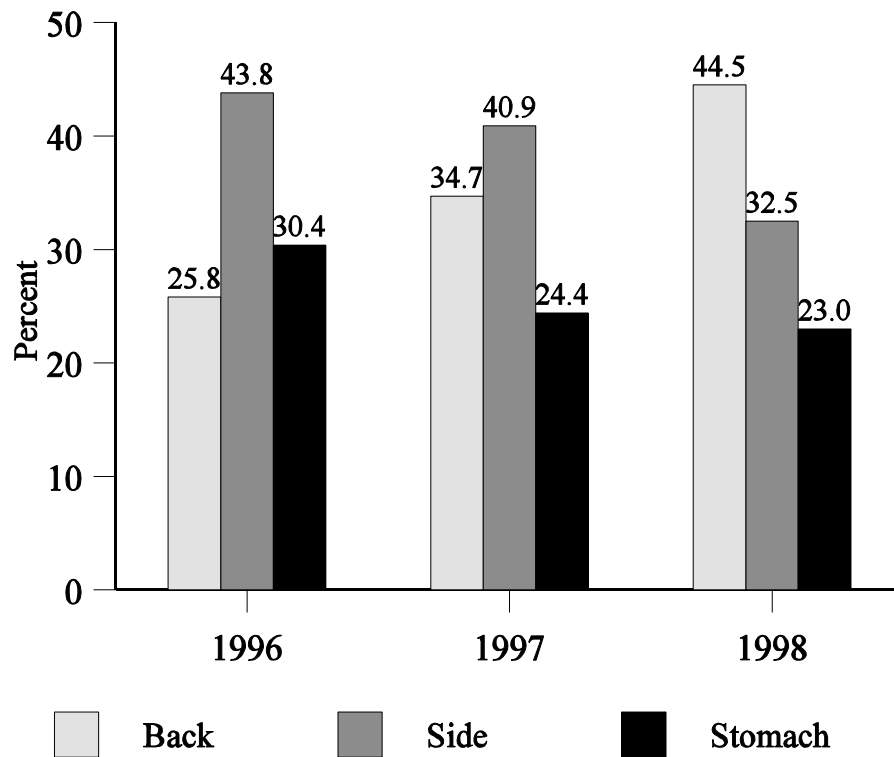
The proportion of infants exposed to smoke for 4 or more hours daily has decreased from 4.6% in 1997 to only 2.9% in 1998.



## Infant Health - Sleep Position

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Infant Sleep Position, 1996-1998



Infant sleeping positions changed dramatically during the years 1996 through 1998. In 1996, the majority of infants were put to sleep on their sides (43.8%), with back sleeping position being the least common (25.8%). The proportion of infants put to sleep on their backs, which is the RECOMMENDED sleeping position, has greatly increased from 25.8% in 1996 to 44.5% in 1998.

## Breastfeeding Fact Sheet

Between the years of 1993 and 1998...

The percent of mothers who breastfed for more than one week postpartum increased from 37.4% to 48.3%.

The percent of WIC mothers who breastfed for more than one week increased from 20.9% to 35.7%.

The percent of mothers who breastfed for more than one month postpartum increased from 15.5% in 1993 to 36.9% in 1998.

In 1998, slightly more than one-half of all mothers in South Carolina breastfed less than one week or did NOT breastfeed at all.

In 1997 and 1998, women who were...

- black

- less than 18 years of age

- unmarried

- on Medicaid and/or WIC and

- had a less than high school education...

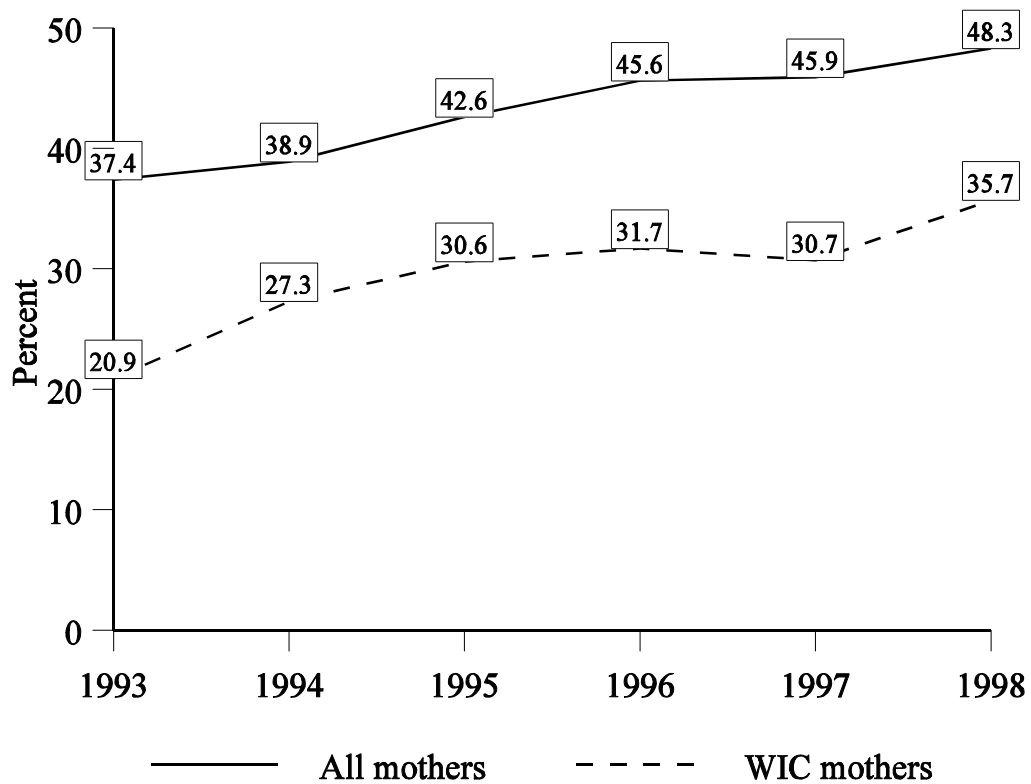
were more likely to NOT breastfeed or breastfeed for less than one week compared to women without these characteristics.

Although the proportion of women breastfeeding their babies for more than one week has increased substantially in South Carolina mothers, we have a great deal of improvement to make in order to reach the Healthy People 2000 Goal: 75% of mothers breastfeeding in the early postpartum period.

## Breastfeeding

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Trend of Breastfeeding for More than One Week, 1993-1998

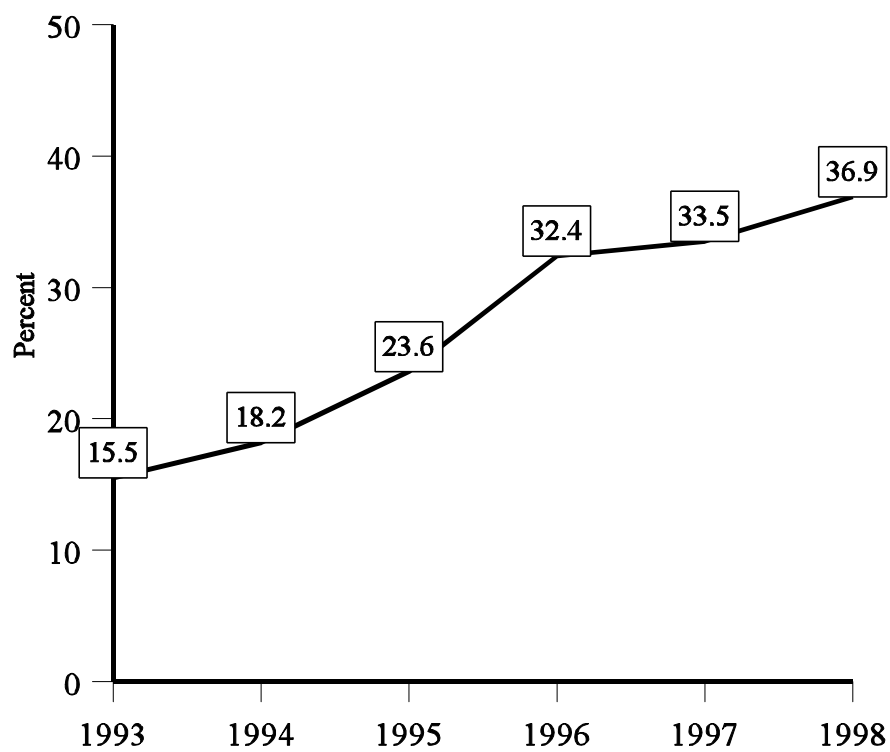


Compared to all mothers, WIC mothers were less likely to breastfeed for one or more weeks. However, the proportion has increased for both groups of women from 1993 to 1998.

## Breastfeeding

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Trend of Breastfeeding for More than One Month, 1993-1998



The proportion of women who breastfed for more than one month increased from 15.5% in 1993 to 36.9% in 1998.

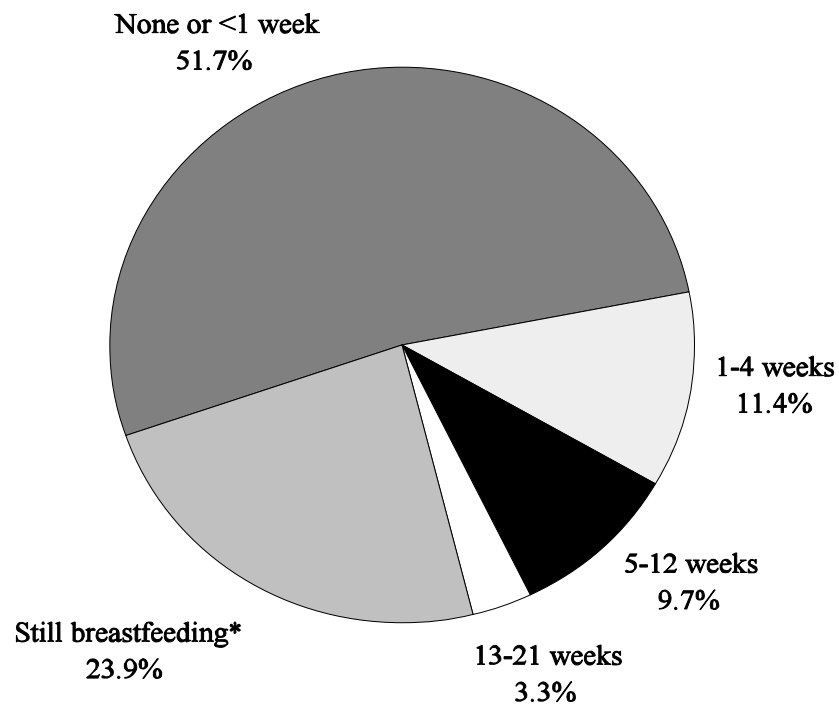
## Breastfeeding

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### Characteristics of Women Who Did NOT Breastfeed or Breastfed for Less than One Week, 1997-1998

<b>Maternal Demographics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	54.1 (2.1)	51.7 (2.1)
<b>Race</b>		
Black	77.7 (3.0)	65.4 (3.3)
White	41.4 (2.6)	43.9 (2.6)
<b>Age</b>		
Less than 18	74.6 (6.8)	85.4 (5.6)
18-24	67.5 (3.5)	61.5 (3.5)
25-34	45.1 (3.1)	42.3 (3.0)
35-55	37.7 (6.1)	34.6 (6.3)
<b>Education</b>		
Less than High School	70.1 (4.5)	69.9 (4.7)
High School	68.0 (3.4)	64.1 (3.4)
More than High School	33.6 (3.0)	30.2 (3.0)
<b>Marital status</b>		
Married	41.1 (2.6)	40.2 (2.6)
Other	74.1 (3.1)	69.0 (3.3)
<b>Medicaid status</b>		
Medicaid	71.6 (2.7)	64.2 (2.8)
Not Medicaid	34.6 (2.9)	36.7 (2.9)
<b>Birthweight</b>		
LBW (<2500 g)	64.2 (2.0)	57.3 (2.1)
NBW (2500+ g)	53.3 (2.3)	51.2 (2.3)
<b>WIC status</b>		
Yes	69.3 (2.7)	64.3 (2.8)
No	36.3 (3.0)	35.5 (3.0)

### Duration of Breastfeeding, 1998



\*Could range from 19-24 weeks at time of survey.

In 1998, just over 50% of women did not breastfeed for breastfed for less than one week. However, 21.1% of mothers breastfed for the first three months and 27.2% of mothers breastfed for 13 or more weeks.

## Financial Issues Fact Sheet

Between the years of 1997-1998...

About 20% of pregnant women had a total household income of less than \$8,000 annually.

Almost 18% of pregnant women received income from some sort of public assistance (AFDC, welfare, public assistance, general assistance, food stamps, or social security income).

Women with the following characteristics were more likely to receive public assistance during pregnancy compared to women without these characteristics:

- black
- 18-24 years of age
- less than high school education
- unmarried
- on Medicaid.

In 1998, the most common source of payment for both prenatal care and delivery was Medicaid.

In 1998, a significantly greater proportion of women with private health insurance (96.1%) saw a private MD for prenatal care compared to women on Medicaid (61.9%).

In 1998, 41% of women were less than 100% of poverty and 21.6% of women were 100-185% of poverty, leaving only 37.4% of women above the SC Medicaid Poverty Threshold for pregnant women (above 185% of poverty).

## Financial Issues - Income Levels

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### Total Annual Household Income for the Women During Pregnancy, 1997-1998

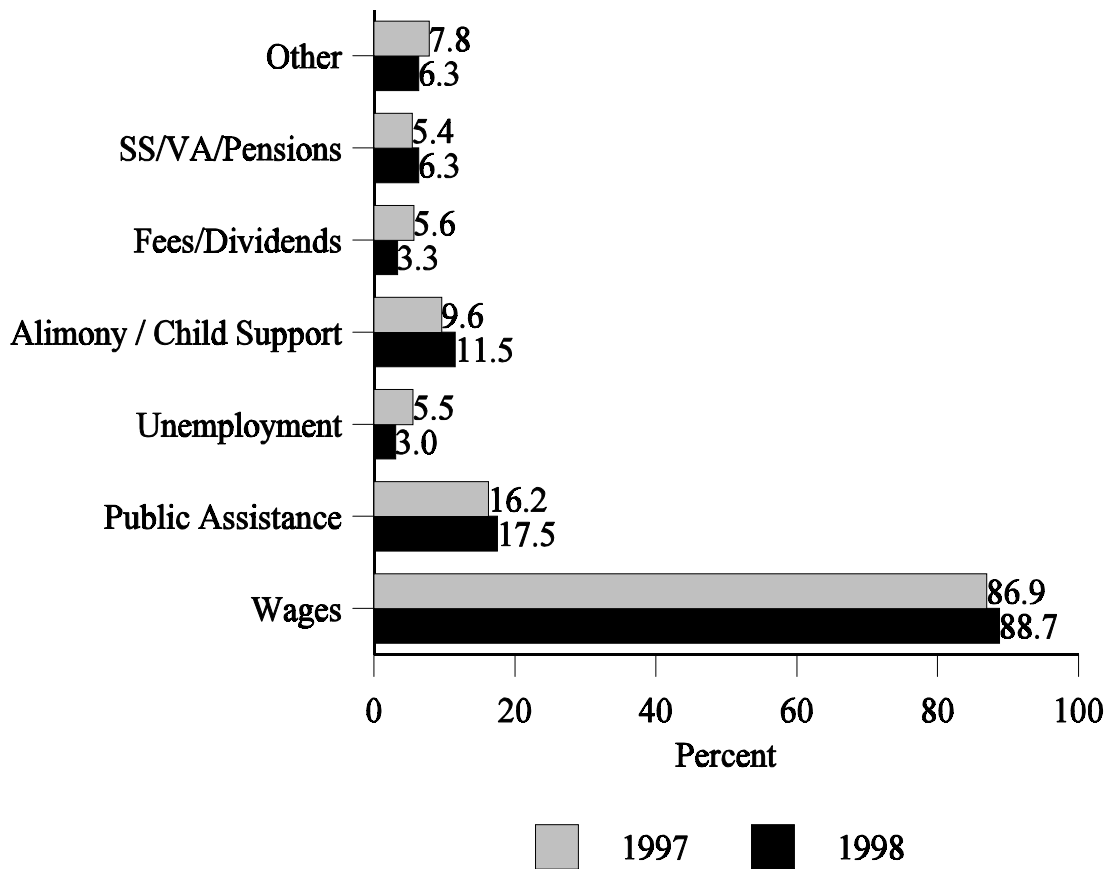
<b>Income Level</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
< 7,999	21.4 (1.9)	18.0 (1.7)
8,000-9,999	5.9 (1.1)	6.4 (1.1)
10,000-11,999	5.0 (0.9)	6.0 (1.1)
12,000-13,999	4.7 (0.9)	3.8 (0.8)
14,000-15,999	4.3 (0.9)	4.9 (1.0)
16,000-17,999	3.1 (0.8)	4.8 (0.9)
18,000-19,999	5.2 (1.0)	4.7 (0.9)
20,000-24,999	7.6 (1.2)	7.3 (1.2)
25,000-29,999	5.7 (1.0)	6.4 (1.1)
30,000-34,999	5.5 (1.0)	6.2 (1.0)
35,000+	31.7 (2.0)	31.5 (2.0)

About 20% of women delivering live infants in 1997 and 1998 had a total annual household income of less than \$8,000.

Only 31.5% of women delivering live infants in 1998 had a total annual household income of \$35,000 or greater.



Sources of Income During Pregnancy, 1997-1998



The top three sources of total household income for 1998 were:

money from a job or business

public assistance (AFDC, welfare, general assistance, food stamps, SSI)

alimony or child support.

Characteristics of Women Earning Wages or  
Receiving Public Assistance\*, 1997-1998

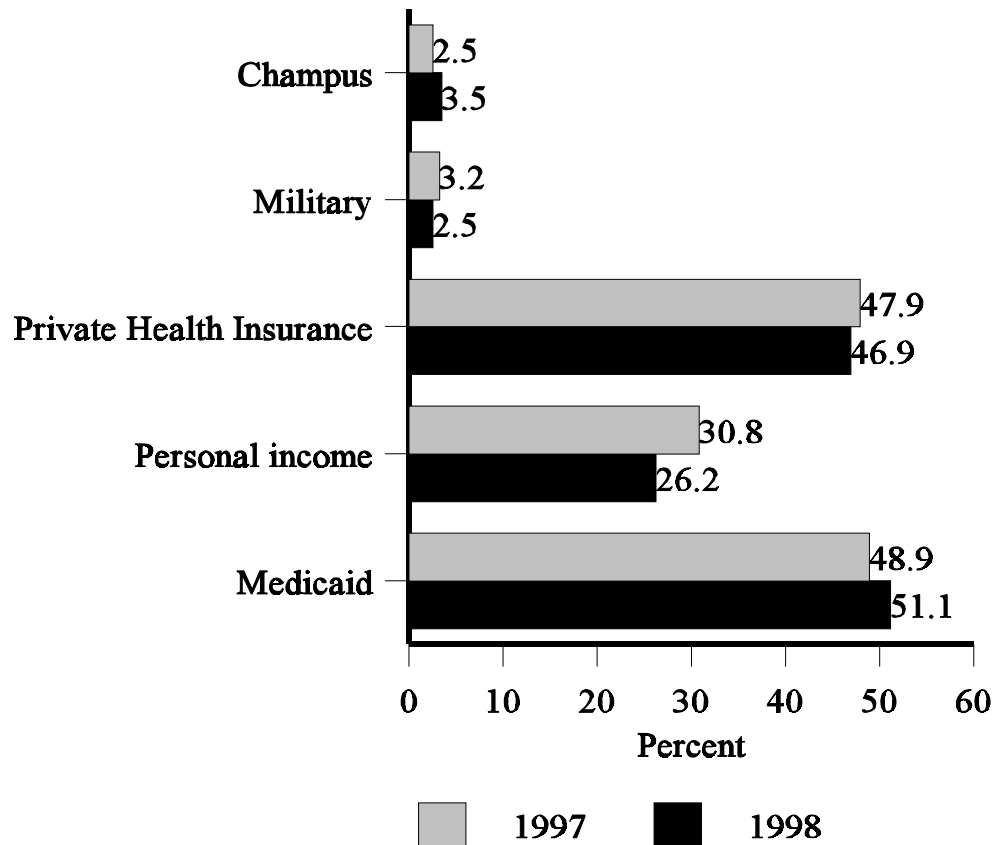
Maternal Characteristics	Wages percent (s.e.)		Public Assistance percent (s.e.)	
	1997	1998	1997	1998
<b>Total</b>	86.9 (1.5)	88.7 (1.4)	16.2 (1.6)	17.5 (1.7)
<b>Race</b>				
Black	73.6 (3.3)	79.7 (2.9)	30.8 (3.4)	31.6 (3.3)
White	94.3 (1.3)	94.2 (1.3)	8.1 (1.5)	8.9 (1.6)
<b>Age</b>				
Less than 18	77.4 (6.5)	85.1 (5.4)	26.9 (7.0)	23.4 (7.1)
18-24	78.8 (3.1)	83.5 (2.8)	25.2 (3.3)	26.1 (3.2)
25-34	93.0 (1.7)	92.1 (1.8)	10.6 (2.0)	11.9 (2.1)
35-55	92.4 (3.6)	94.9 (2.0)	5.2 (2.9)	7.4 (3.0)
<b>Education</b>				
Less than High School	70.2 (4.5)	69.5 (4.7)	30.8 (4.5)	40.2 (5.0)
High School	87.4 (2.5)	89.7 (2.3)	18.6 (3.0)	17.0 (2.7)
More than High School	95.3 (1.4)	96.6 (1.1)	4.6 (1.3)	5.6 (1.4)
<b>Marital status</b>				
Married	97.1 (0.9)	97.2 (0.9)	4.8 (1.1)	5.4 (1.2)
Other	71.1 (3.3)	76.0 (3.0)	33.9 (3.4)	35.5 (3.4)
<b>Medicaid status</b>				
Yes	76.7 (2.6)	80.4 (2.4)	30.2 (2.8)	31.9 (2.8)
No	98.2 (0.8)	98.8 (0.8)	0.7 (0.4)	0.2 (0.1)
<b>Birthweight</b>				
VLBW (<1500 g)	80.2 (1.1)	83.3 (1.0)	27.2 (1.3)	27.4 (1.2)
MLBW (1500-2499 g)	82.0 (2.0)	80.9 (2.0)	24.8 (2.2)	24.0 (2.2)
NBW (2500+ g)	87.4 (1.6)	89.4 (1.5)	15.4 (1.8)	16.9 (1.8)

\* Public assistance is defined as any one of the following: AFDC, welfare, public assistance, food stamps, or SSI. Please note that wages and public assistance are not mutually exclusive.

## Financial Issues - Prenatal Care Payment

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Sources of Payment for Prenatal Care\*, 1997-1998



\*Sources of payment are not mutually exclusive.

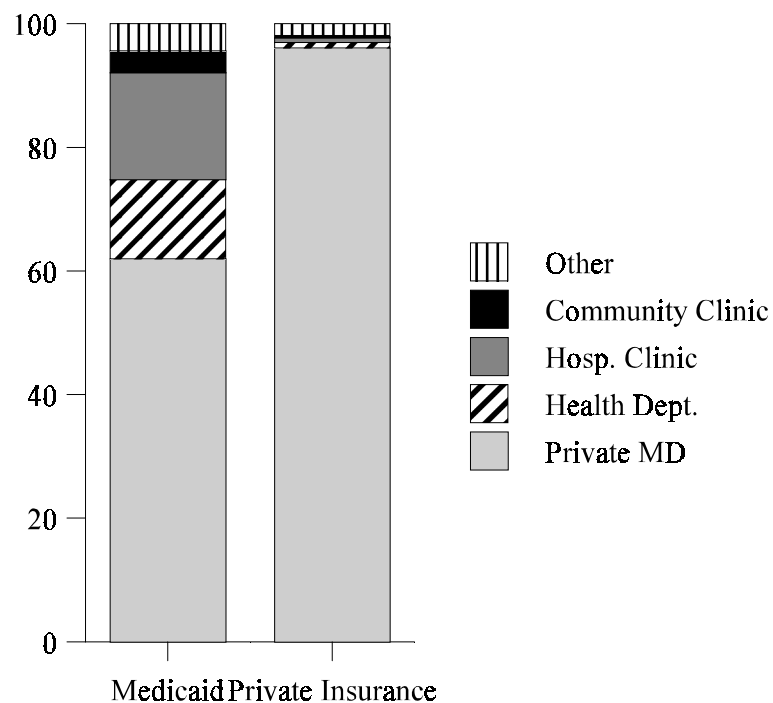
In 1998, over one-quarter of women paid for all or part of their prenatal care with personal income.

The most common sources of payment for prenatal care were Medicaid and private health insurance for 1997 and 1998.

## Financial Issues - Source of Prenatal Care by Payment Method

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### Sources of Prenatal Care Among Women who Paid with Medicaid and Private Health Insurance, 1998

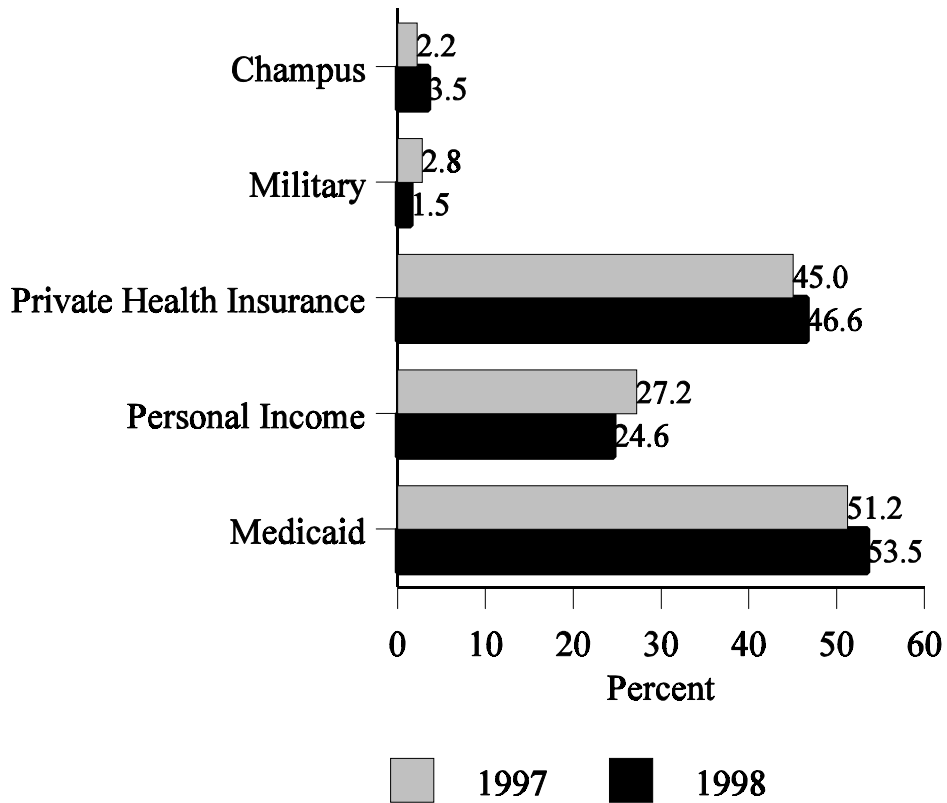


In 1998, a significantly greater proportion of women with private health insurance (96.1%) went to a private doctor for prenatal care visits compared to women on Medicaid (61.9%).

### Financial Issues - Payment for Delivery

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Sources of Payment for Delivery\*, 1997-1998

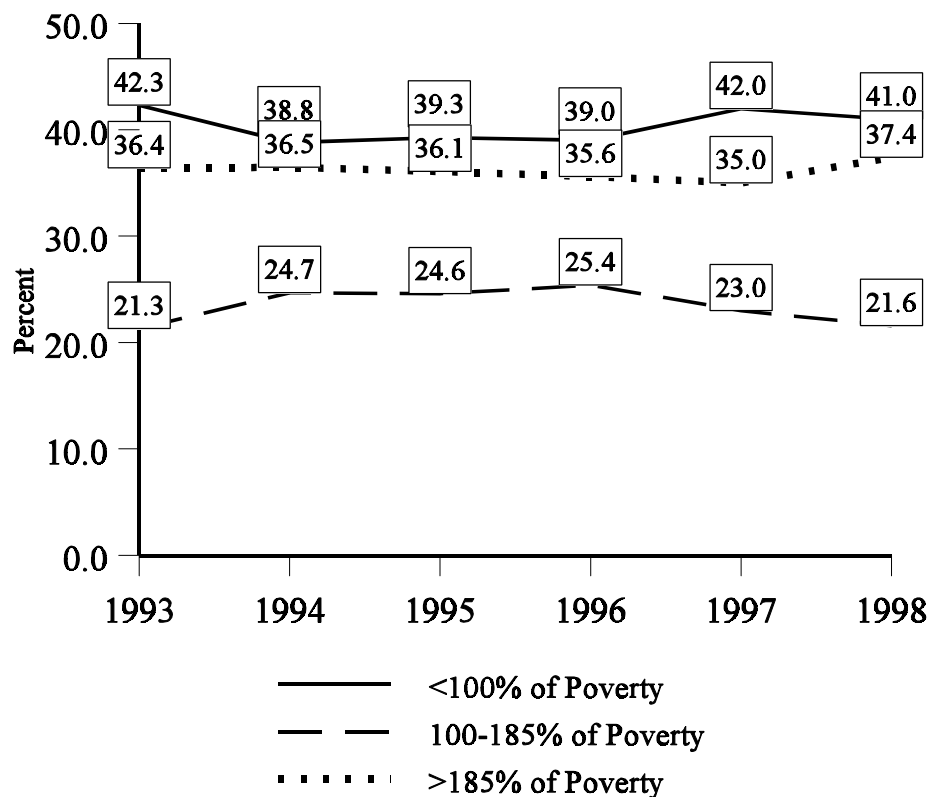


\*Payment types are not mutually exclusive.

The top three sources of payment for delivery in 1998 were:

Medicaid  
Private Health Insurance  
Personal Income.

Poverty Status among Women Who Delivered a Live Birth, 1993-1998



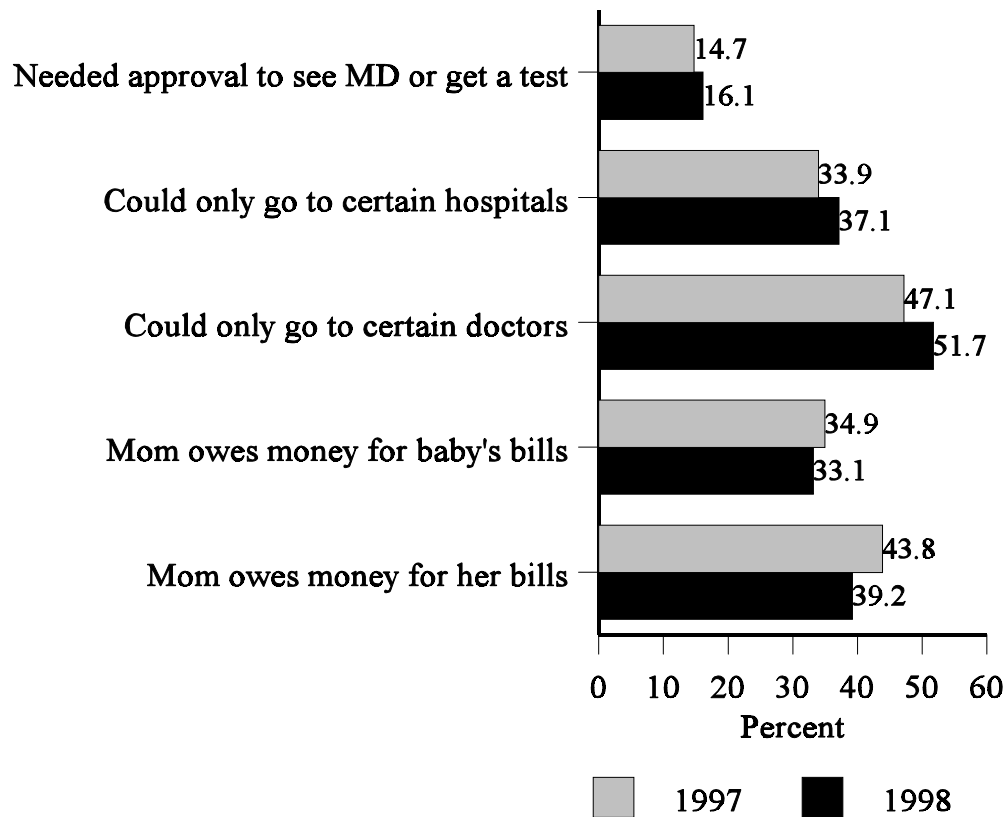
**Poverty thresholds** were obtained from the Health and Human Services Federal Poverty Guidelines, 1998<sup>4</sup>. Poverty status is based on family income and family size obtained from questions 65 and 49, respectively, on the PRAMS survey.

Between the years 1993 and 1998, the percent of pregnant women (who delivered live born infants) living at or below 185% of the poverty level remained fairly constant between 62-65%.

Characteristics of Women Living  
At or Below 185% of Poverty, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Race</b>		
Black	90.7 (2.2)	86.1 (2.5)
White	52.2 (2.7)	49.2 (2.7)
<b>Age</b>		
Less than 18	93.8 (5.1)	94.4 (3.8)
18-24	87.1 (2.5)	83.2 (2.8)
25-34	48.6 (3.2)	45.4 (3.1)
35-55	52.6 (6.3)	53.3 (7.0)
<b>Education</b>		
Less than High School	95.8 (2.2)	93.7 (2.6)
High School	78.0 (3.2)	75.0 (3.1)
More than High School	39.9 (3.2)	38.6 (3.2)
<b>Marital status</b>		
Married	47.7 (2.7)	45.8 (2.7)
Other	93.3 (1.9)	90.7 (2.1)
<b>Medicaid status</b>		
Yes	94.7 (3.0)	93.6 (1.5)
No	34.4 (1.4)	28.1 (2.8)
<b>Birthweight</b>		
VLBW (<1500 g)	74.5 (1.3)	75.4 (1.2)
MLBW (1500-2499 g)	76.8 (2.1)	74.2 (2.2)
NBW (>=2500 g)	64.1 (2.3)	61.6 (2.3)

Health Insurance Coverage Issues, 1997-1998



The most common health insurance issues reported by mothers for 1997 and 1998 were...

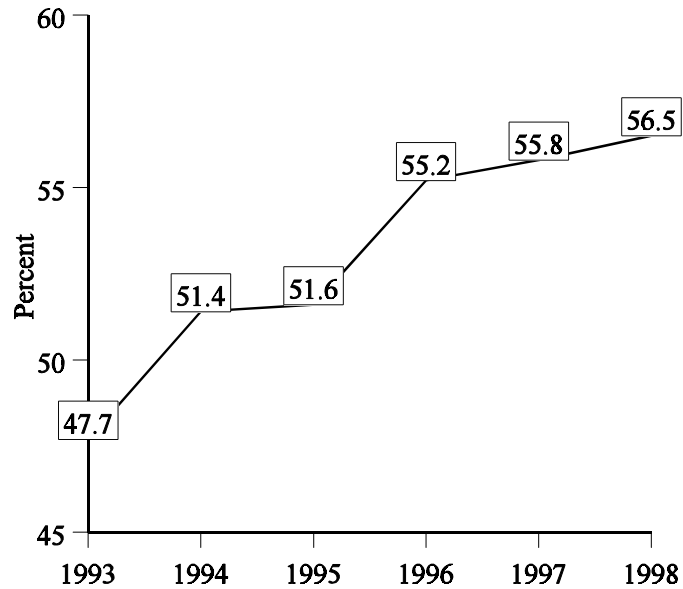
Could only go to certain doctors;  
Still owe money for mother's bills; and  
Could only go to certain hospitals.



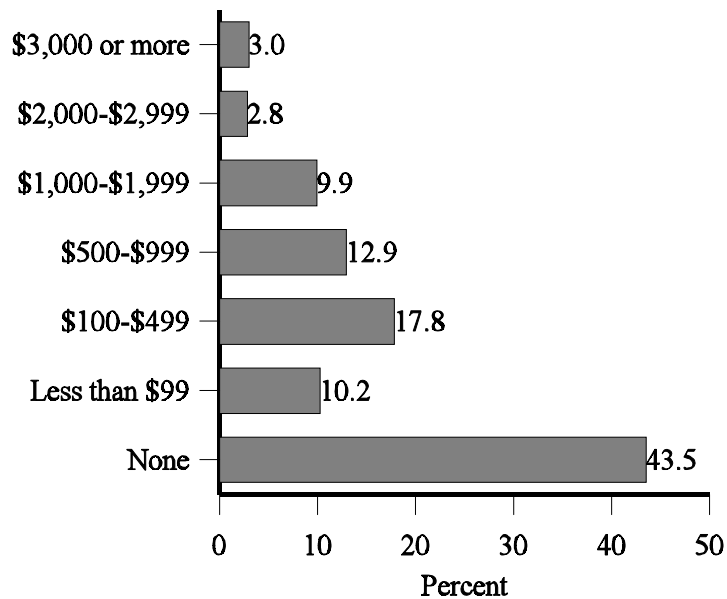
## Financial Issues - Prenatal Care and Delivery Paid with Personal Income

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Percent of Women Who Paid some Money for Prenatal Care or Delivery,  
1993-1998



How Much Did Women Pay out of Pocket in 1998?



# Medicaid Fact Sheet

Between the years of 1993 and 1998...

The proportion of women who applied for Medicaid during pregnancy was about 50.0%.

The proportion of women on Medicaid during pregnancy remained constant at about 53-55% from 1993-1998.

The percent of Medicaid mothers receiving inadequate prenatal care decreased from 12.1% in 1993 to 9.3% in 1998, and the percent of those receiving adequate prenatal care increased significantly from 48.7% in 1993 to 65.8% in 1998.

In 1998...

- 89.6% of women on Medicaid were also on WIC.

- 6.4% of women on Medicaid reported income and family sizes which placed them above 185% of the poverty level.

- 19% of women who applied for Medicaid had to wait for more than 4 weeks for their cards, and 5.3% reported having problems getting their child on Medicaid.

In 1997 and 1998, women who were more likely to be on Medicaid during pregnancy had the following characteristics...

- black

- less than 18 years of age

- unmarried

- on WIC

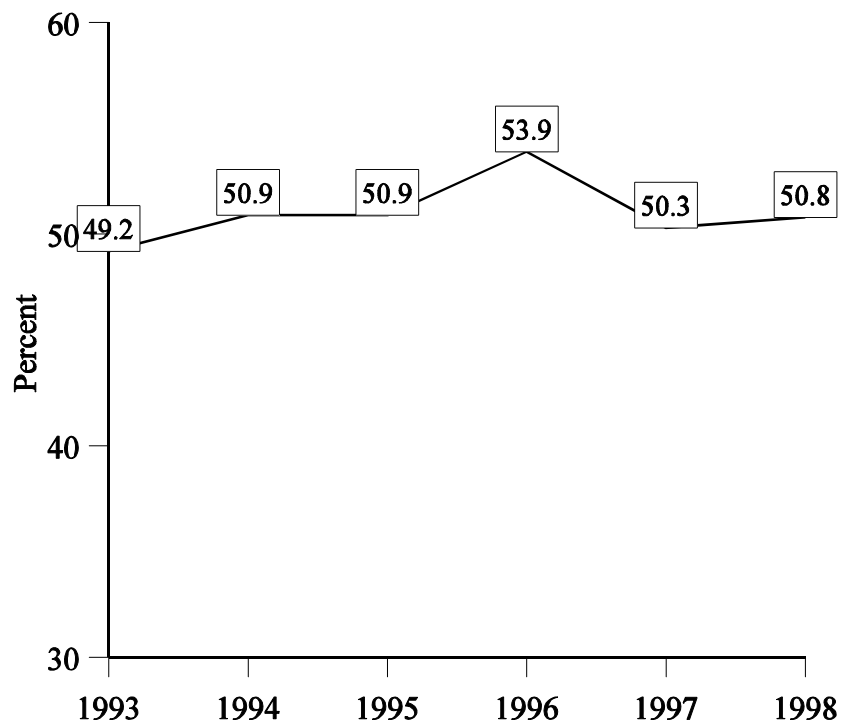
- had low birthweight infants and

- had a less than high school education.

## Special Populations - Medicaid

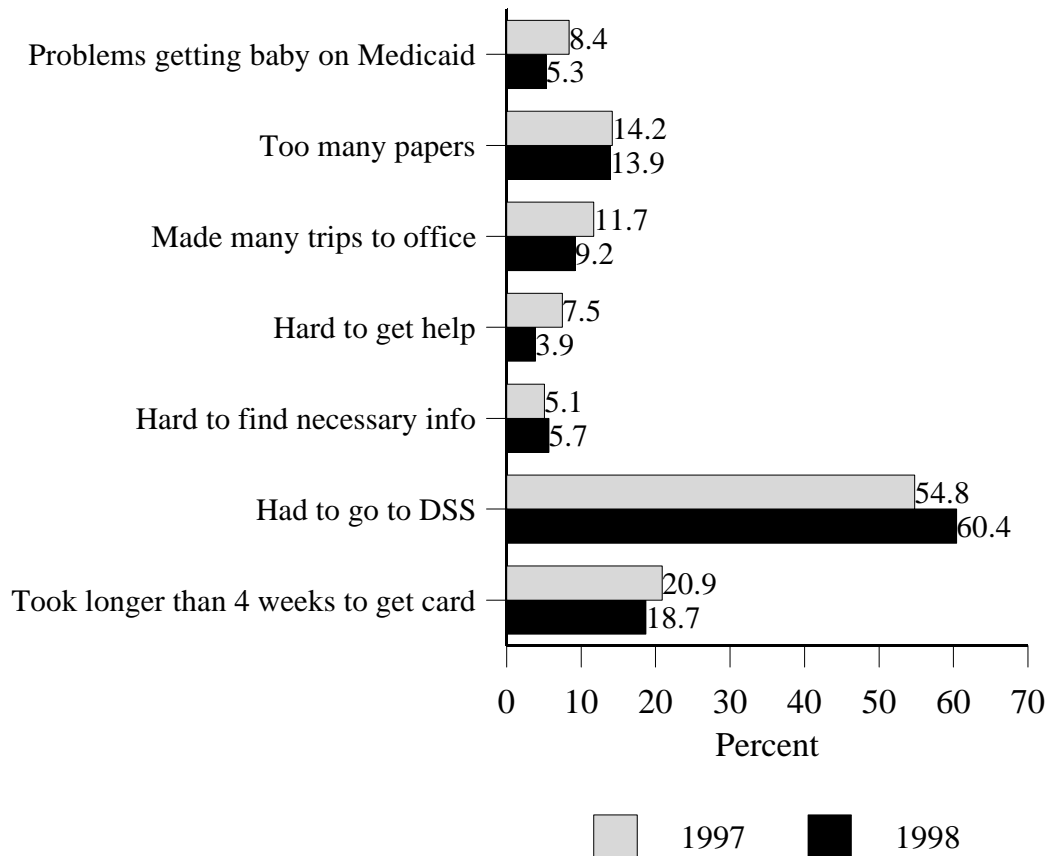
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Percent of Women Who Applied for Medicaid during Pregnancy, 1993-1998



The percent of women applying for Medicaid during pregnancy remained fairly steady between 1993 and 1998. 50.8% of pregnant women applied for Medicaid in 1998.

### Experiences Applying for Medicaid, 1997-1998

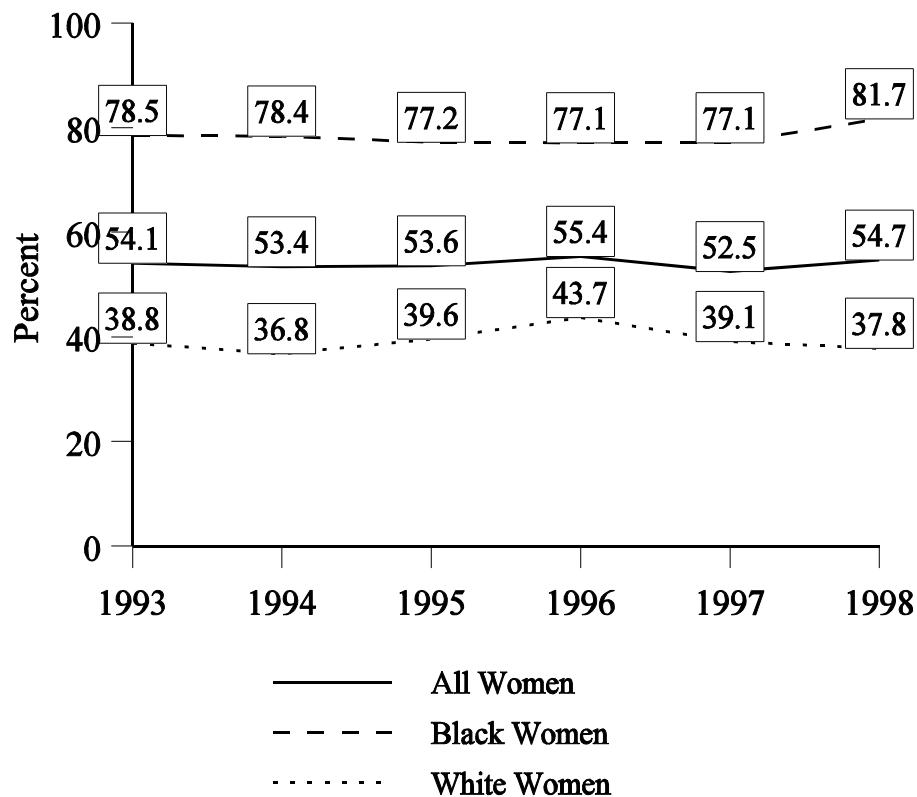


The three most common experiences applying for Medicaid in 1997 and 1998 were:  
She had to go to DSS;  
It took longer than 4 weeks to get a card; and  
There were too many papers to fill out.

## Special Populations - Medicaid

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Proportion of Women on Medicaid during Pregnancy\*, 1993-1998



\*A woman was considered to be on Medicaid if **any one** of the following was true:

She was on Medicaid before pregnancy;  
Prenatal care was paid by Medicaid; or  
Delivery was paid by Medicaid.

Over 50% of women were on Medicaid during pregnancy during the years 1993 through 1998. Black women were more than twice as likely as white women to receive Medicaid.

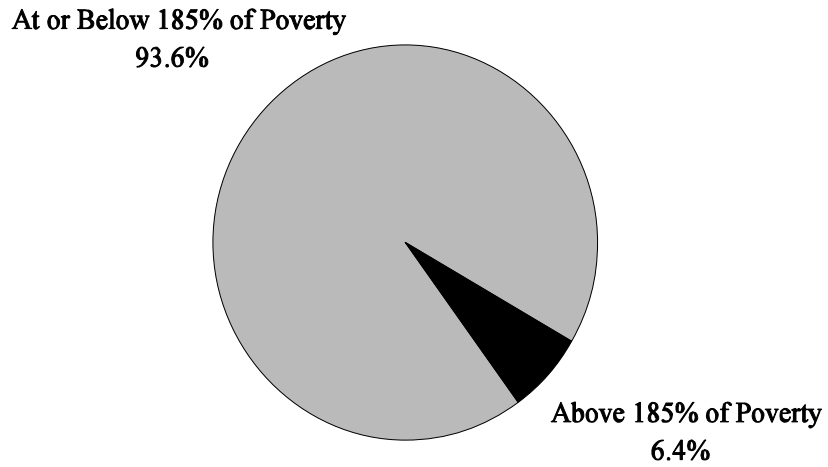
## Special Populations - Medicaid

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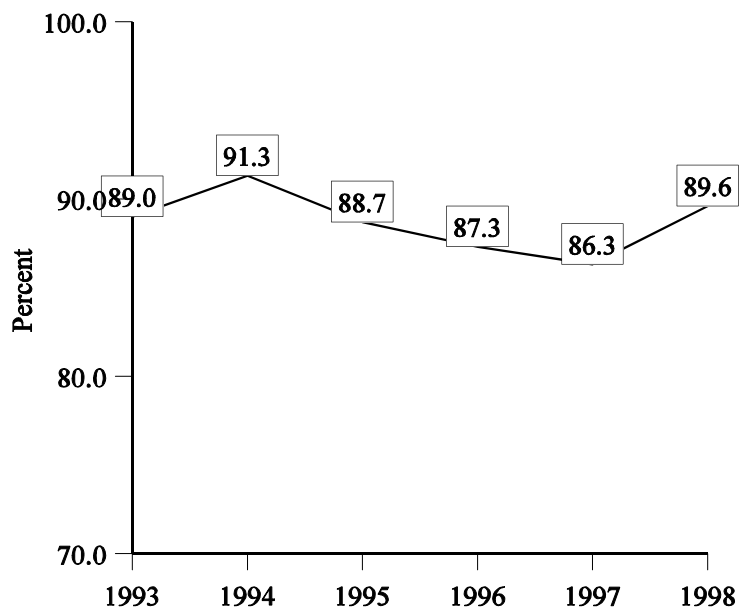
### Characteristics of Women on Medicaid during Pregnancy, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	52.5 (2.1)	54.7 (2.1)
<b>Race</b>		
Black	77.1 (2.9)	81.7 (2.6)
White	39.1 (2.6)	37.8 (2.6)
<b>Age</b>		
Less than 18	90.4 (4.6)	93.5 (3.9)
18-24	78.2 (3.0)	78.9 (2.8)
25-34	34.7 (3.0)	35.1 (2.9)
35-55	24.0 (5.5)	28.7 (5.8)
<b>Education</b>		
Less than High School	85.7 (3.4)	91.5 (2.7)
High School	65.5 (3.5)	66.5 (3.3)
More than High School	23.3 (2.7)	25.6 (2.8)
<b>Marital status</b>		
Married	28.9 (2.4)	30.1 (2.4)
Other	89.2 (2.2)	91.2 (1.9)
<b>WIC status</b>		
Yes	83.9 (2.1)	86.3 (1.9)
No	15.7 (2.4)	13.2 (2.1)
<b>Birthweight</b>		
VLBW (350-1499 g)	71.2 (1.2)	68.8 (1.2)
MLBW (1500-2499 g)	69.0 (2.2)	70.7 (2.1)
NBW (2500+ g)	51.0 (2.3)	53.2 (2.3)

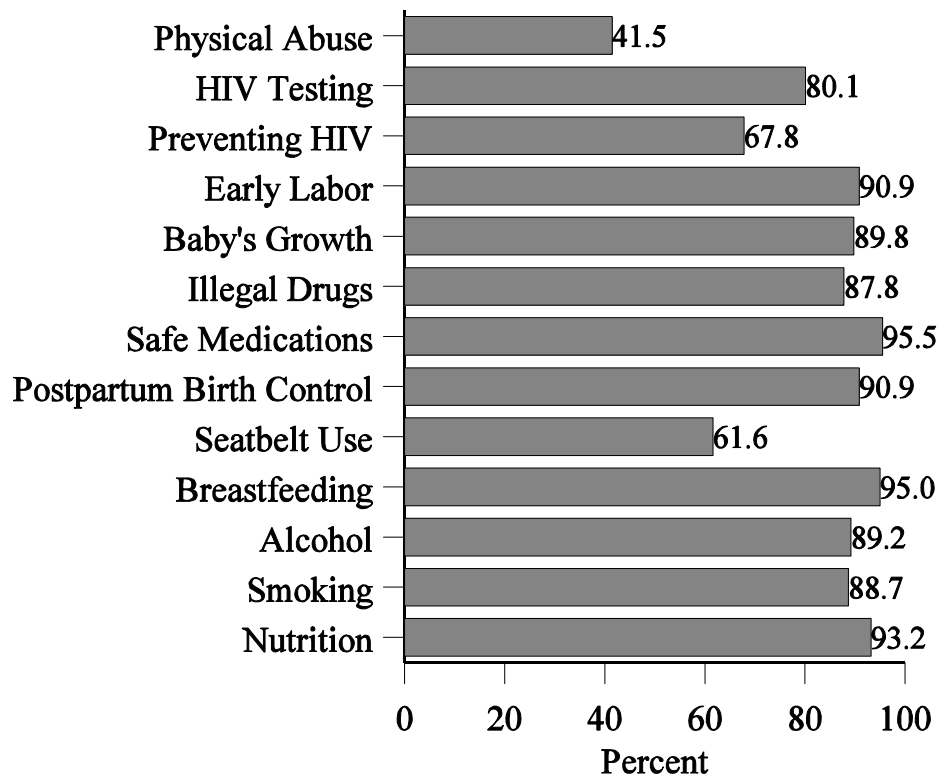
### Poverty Levels among Women on Medicaid, 1998



### Proportion of Women on Medicaid Who Were also on WIC, 1993-1998



Proportion of Medicaid Mothers Who Received Information on  
Important Health Issues During Prenatal Care, 1998



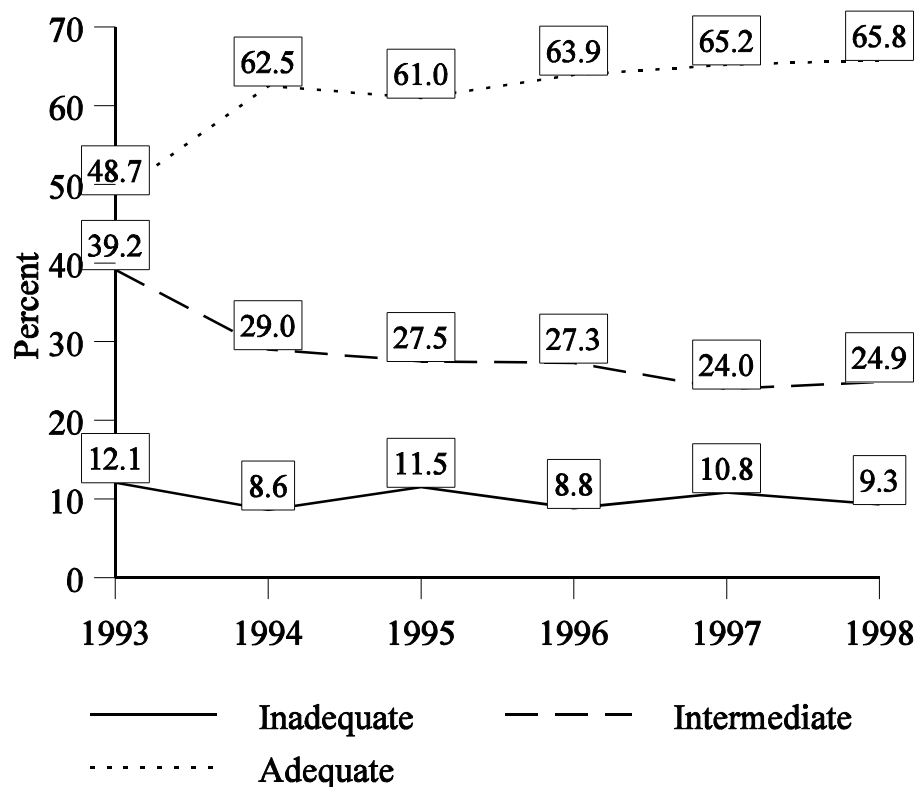
When compared to all mothers, a greater proportion of Medicaid mothers received information about all topics except “safe medications” during pregnancy.



## Special Populations - Medicaid

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Adequacy\* of Prenatal Care among Women on Medicaid, 1993-1998



\*The Kessner Index was used to measure adequacy of prenatal care. Categories are based on gestational age, month of first prenatal care visit, and total number of prenatal care visits.

The percent of Medicaid mothers receiving ADEQUATE prenatal care increased substantially from 48.7% in 1993 to 65.8% in 1998.

However, the percent of Medicaid mothers receiving INADEQUATE prenatal care decreased from 12.1% in 1993 to 9.3% in 1998.

## WIC Fact Sheet

Between the years of 1993 and 1998...

The proportion of women on WIC during pregnancy remained between 54% and 57%.

The proportion of women on WIC receiving inadequate prenatal care decreased from 9.2% in 1993 to 8.0% in 1998.

The proportion of WIC mothers who received adequate prenatal care increased from 52.9% in 1993 to 86.8% in 1998.

During the period of 1998, women who were...

black

less than 18 years old

unmarried

on Medicaid and

had a less than high school education...

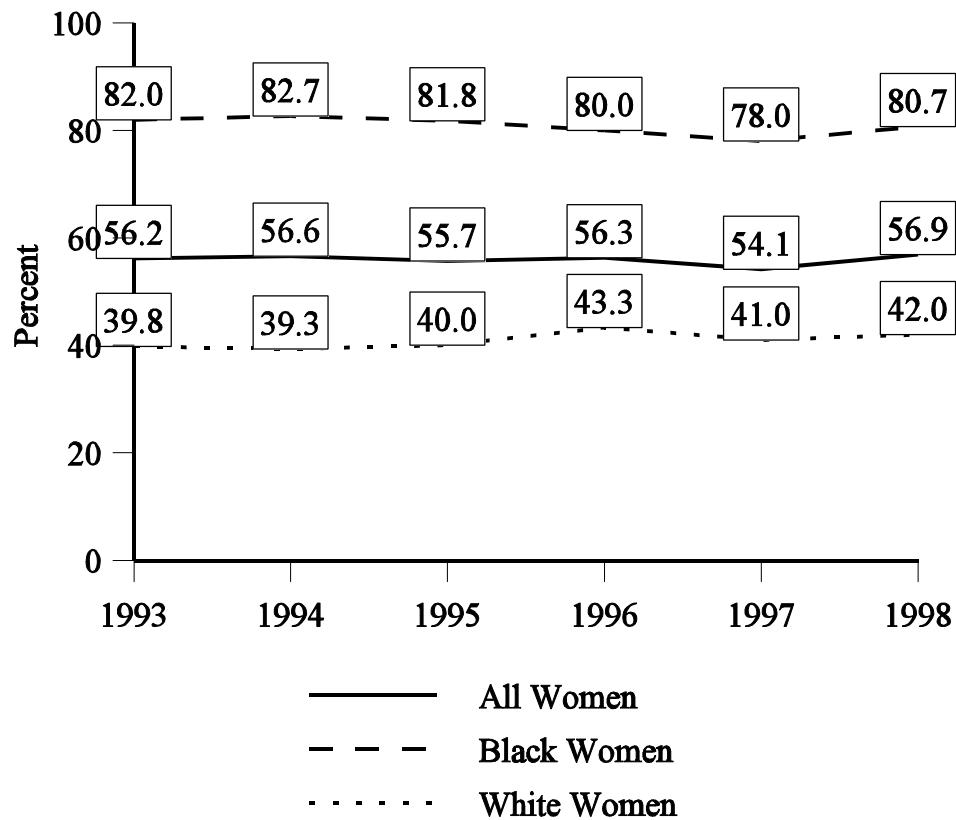
were more likely to be on WIC compared to women without these characteristics.

In 1998...

Over 82% of WIC mothers paid for their prenatal care and delivery with Medicaid, and 20% paid with health insurance. Very few paid from other sources.

Over 90% of WIC mothers received information during prenatal care on nutrition, safe medications, smoking and drinking alcohol during pregnancy, breastfeeding, postpartum birth control, baby's growth, and early labor.

Proportion of the Women on WIC\*, 1993-1998



\*A federal supplemental food program for women, infants, and children (WIC).

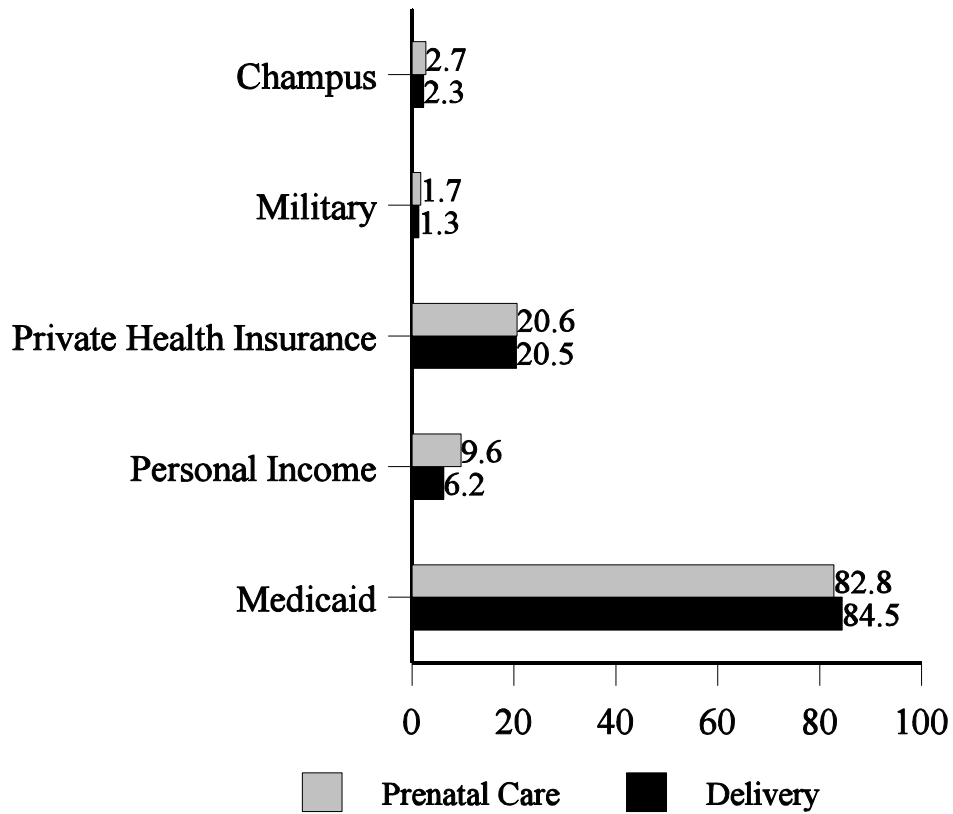
The percent of women on WIC during pregnancy remained fairly steady from 54% to 57% during the years 1993 through 1998.

Black women were about twice as likely to be on WIC as white women for the years 1993-1998.

Characteristics of Women Who Received WIC Services, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Total</b>	54.1 (1.5)	56.9 (2.1)
<b>Race</b>		
Black	78.0 (3.0)	80.7 (2.7)
White	41.0 (2.6)	42.0 (2.6)
<b>Age</b>		
Less than 18	82.8 (6.1)	89.0 (4.9)
18-24	80.3 (2.9)	78.0 (2.9)
24-34	36.6 (3.0)	41.3 (3.0)
35-55	28.1 (5.6)	26.7 (5.7)
<b>Education</b>		
Less than High School	82.0 (3.8)	90.5 (2.8)
High School	64.2 (3.5)	69.3 (3.2)
More than High School	29.7 (2.9)	29.7 (2.9)
<b>Marital status</b>		
Married	34.5 (2.5)	35.8 (2.5)
Other	84.3 (2.6)	87.9 (2.2)
<b>Medicaid status</b>		
Yes	86.3 (2.1)	89.6 (1.7)
No	18.4 (2.4)	17.2 (2.3)
<b>Birthweight</b>		
LBW (<2500 g)	67.9 (1.9)	65.3 (1.8)
NBW (2500+ g)	52.8 (2.3)	56.1 (2.3)

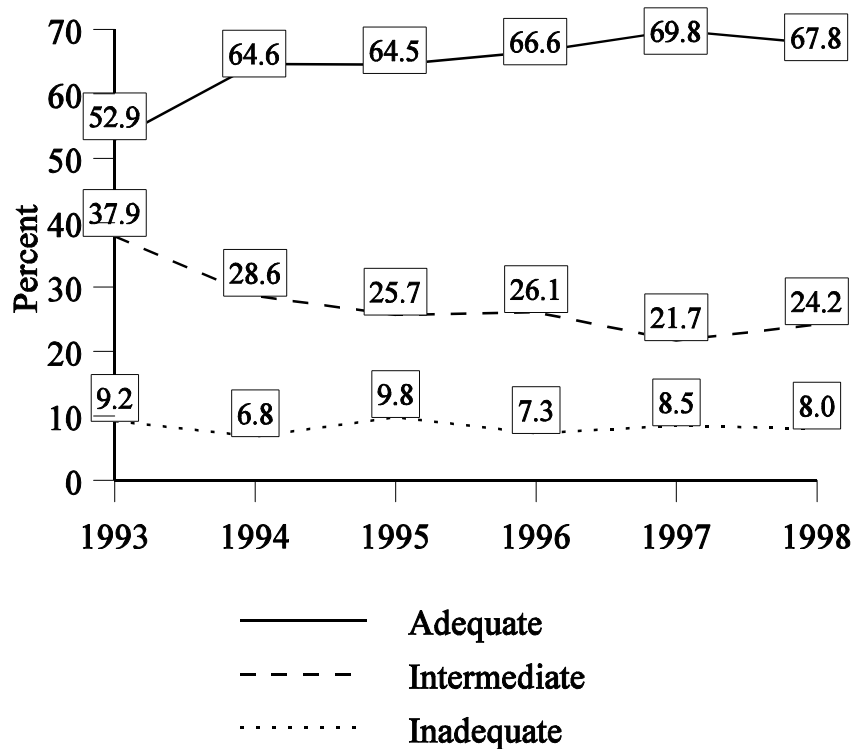
Source of Payment for Prenatal Care and Delivery for Mothers on WIC, 1998



In 1998, over 82% of WIC mothers paid for their prenatal care visits and delivery with Medicaid.

Almost 10% of WIC mothers paid for some prenatal care with personal income, while 6.2% used personal income to pay for the delivery costs.

Adequacy\* of Prenatal Care Among WIC Women , 1993-1998

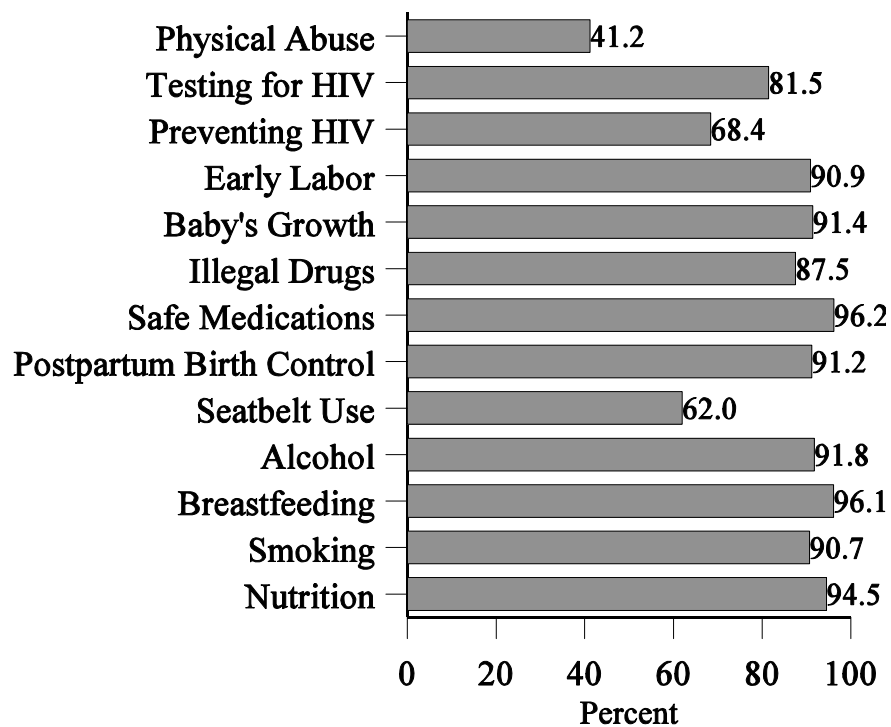


\*The Kessner Index was used to measure adequacy of prenatal care. Categories are based on gestational age, month of first prenatal care visit, and total number of prenatal care visits.

The proportion of WIC mothers receiving ADEQUATE prenatal care increased from 52.9% in 1993 to 67.8% in 1998.

The proportion of WIC mothers receiving INADEQUATE prenatal care decreased from 9.2% in 1993 to 8.0% in 1998.

Women on WIC Who Received Information on Important Health Issues  
During Prenatal Care, 1998



When compared to all mothers, a greater proportion of WIC mothers received information on all topics during prenatal care in 1998. In 1997, this was true for only three topics: illegal drugs, preventing HIV, and physical abuse.

# Teenage Mothers Fact Sheet

Between the years of 1993 and 1998...

The proportion of live births to teenagers (ages 15-17) decreased from 7.4% in 1993 to 6.6% in 1998.

The proportion of unintended births among teenagers increased from 81.5% in 1993 to 85.5% in 1997 then dropped to 78.7% in 1998.

The proportion of teen mothers receiving inadequate prenatal care decreased from 18.6% in 1996 to 8.7% in 1998. And the proportion of teen mothers receiving adequate prenatal care increased from 46.2% in 1996 to 53.5% in 1998.

In 1998...

Teen mothers (ages 15-17) were more likely to deliver LBW infants than adult mothers (18 or over).

In 1997 and 1998, a greater proportion of teen mothers were...

- black

- unmarried

- on Medicaid/ WIC and

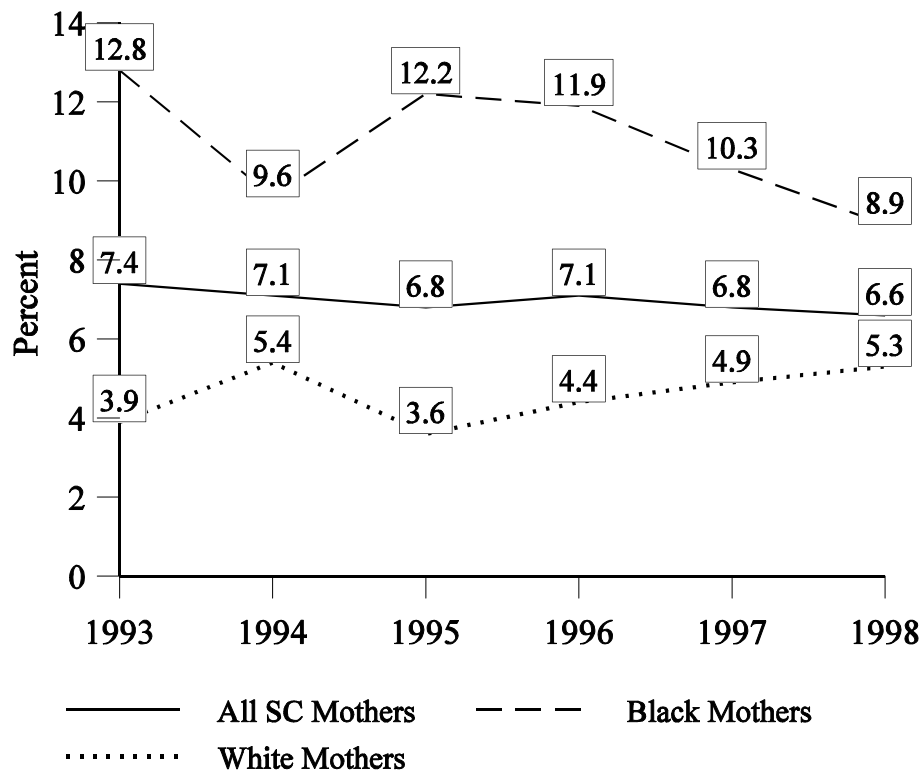
- had a less than high school education.



## Special Populations - Teenagers (Ages 15-17)

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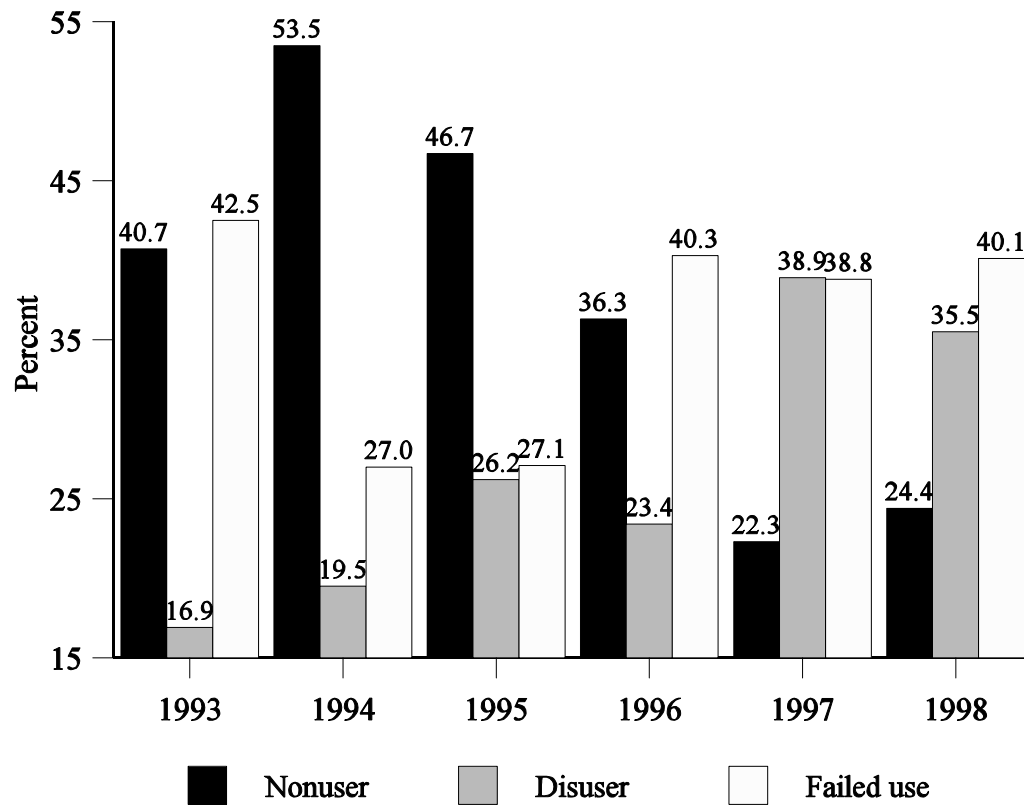
Percent of Births to Teenage Mothers in SC, 1993-1998



Almost 7% of all live births in South Carolina were to teenagers (ages 15-17) in 1998.

Just over 20% of all mothers who delivered live births in 1998 got pregnant for the first time as a teenager (less than 18 years of age).

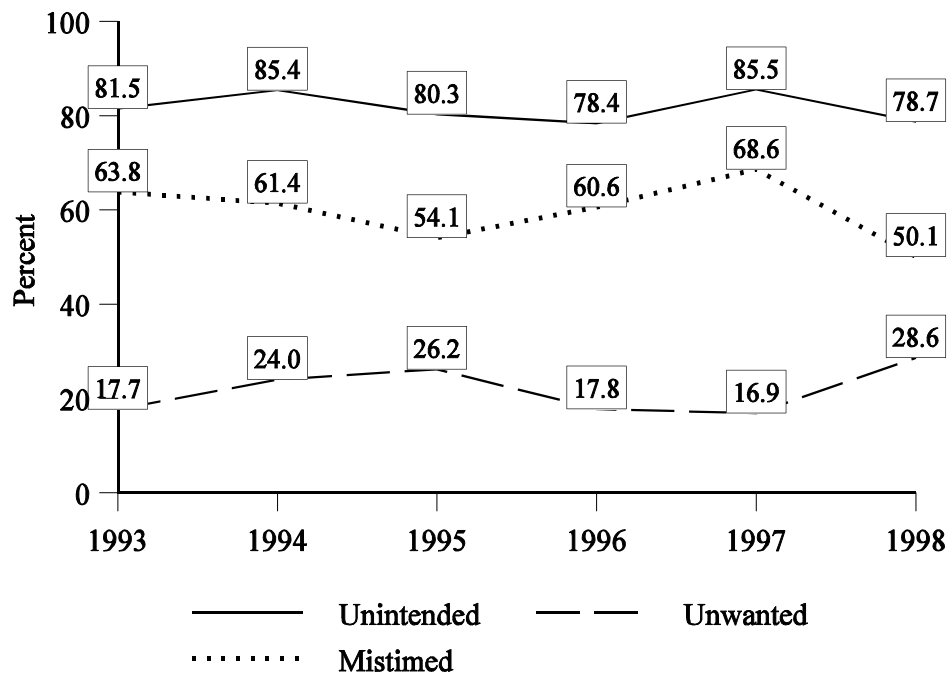
Contraceptive Behaviors Among Teenagers, 1993-1998



The percent of teenagers reporting failed use of contraception remained around 40% from 1996 to 1998. The percent of non-users decreased greatly from 36.3% in 1996 to 22.3% in 1997, but increased slightly in 1998 (24.4%).

The percent of teenagers who were using some form of contraception during the three months before they became pregnant but NOT at the time of conception (disusers) decreased from 38.9% in 1997 to 35.5% in 1998.

Unintended Pregnancies Among Teenage Mothers, 1993-1998



**Definitions:**

Intended pregnancies: those wanted then or sooner.

Unintended pregnancies: those which were unwanted (did not want then or anytime in the future) or mistimed (wanted to be pregnant later).

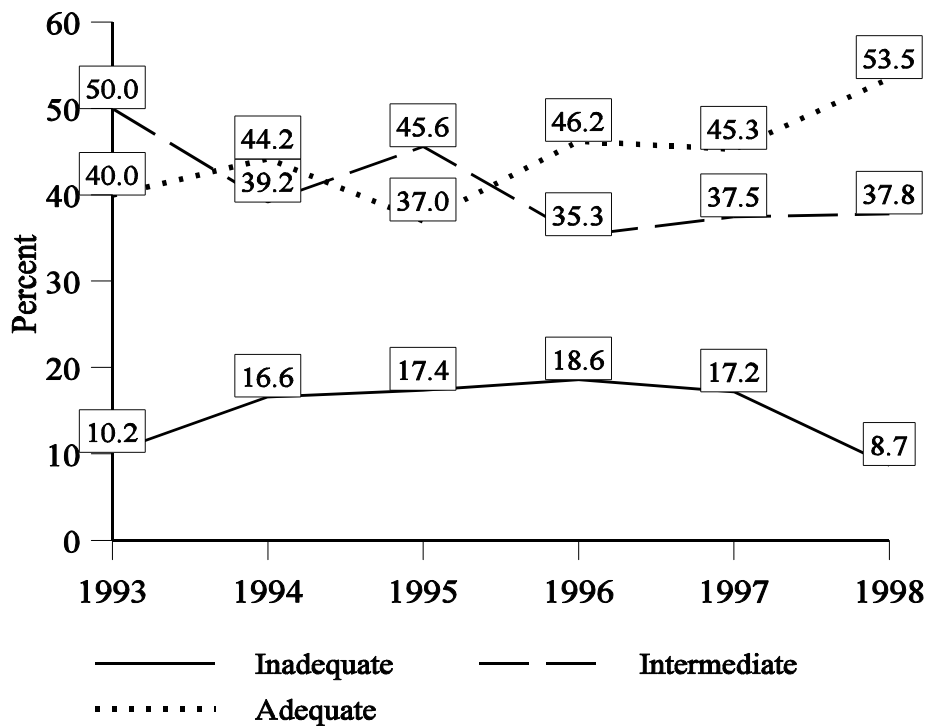
The proportion of teenage mothers that reported UNINTENDED pregnancies decreased from 85.5% in 1997 to 78.7% in 1998.

However, the percent of unintended pregnancies that were UNWANTED increased from 19.6 in 1997 to 28.6% in 1998.

## Special Populations - Teenagers (Ages 15-17)

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Adequacy\* of Prenatal Care Among Teenage Mothers, 1993-1998



\*Kessner Index defines prenatal care as adequate, intermediate, or inadequate. These categories are based on gestational age, month of first prenatal care visit, and total number of prenatal care visits. Total number of prenatal care visits was taken from question 13 of the PRAMS survey.

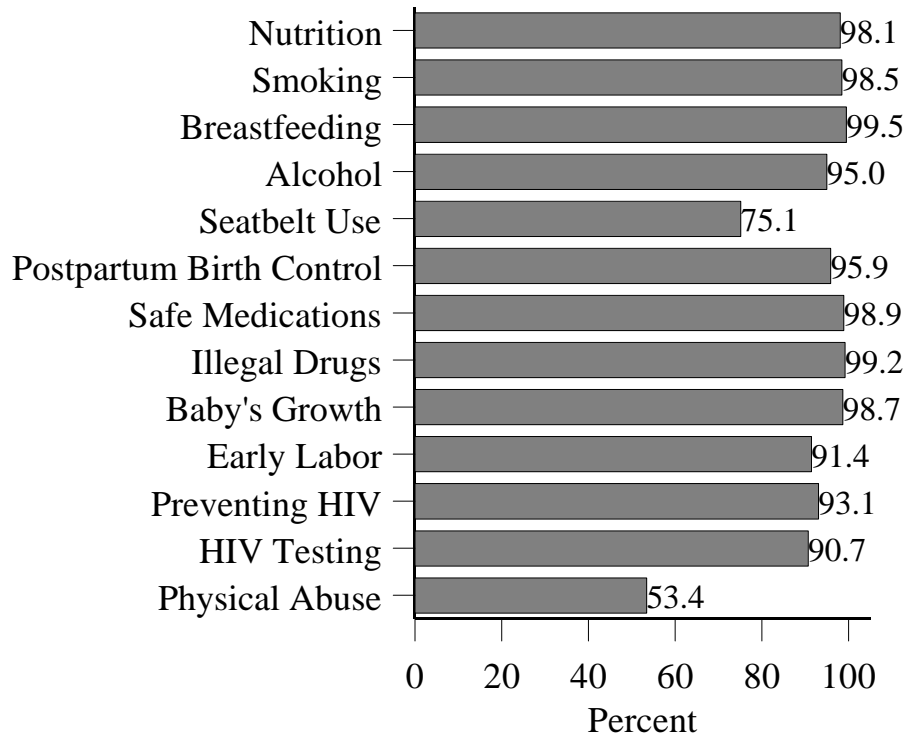
The percent of teenage mothers receiving INADEQUATE prenatal care increased from 10.2% in 1993 to 18.6% in 1996 and then decreased to a low of 8.7% in 1998.

The percent of teenage mothers receiving adequate prenatal care increased greatly from 40.0% in 1993 to 53.5% in 1998.

## Special Populations - Teenagers (Ages 15-17)

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Proportion of Teenage Mothers who Received Information about Important Health Issues During Prenatal Care, 1998



A greater proportion of teenagers received information on all topics in comparison to adult women aged 18 and older.

A greater proportion of teen mothers had the following characteristics:

- black
- less than a high school education
- unmarried
- on WIC and on Medicaid.

Around 15% of teenage mothers had LBW infants in 1998.

## Special Populations - Teenagers (Ages 15-17)

### Characteristics of Teenage Mothers, 1997-1998

<b>Maternal Characteristics</b>	<b>1997</b> percent (s.e.)	<b>1998</b> percent (s.e.)
<b>Race</b>		
Black	55.2 (7.8)	51.3 (8.4)
White	44.8 (7.8)	48.8 (8.4)
<b>Education</b>		
Less than High School	89.2 (4.8)	85.5 (6.2)
High School	10.8 (4.8)	14.5 (6.2)
<b>Marital status</b>		
Married	12.2 (5.3)	9.7 (4.7)
Other	87.8 (5.3)	90.3 (4.7)
<b>WIC status</b>		
On WIC during pregnancy	82.2 (6.3)	88.3 (5.2)
Not on WIC	17.8 (6.3)	11.7 (5.2)
<b>Medicaid status</b>		
Yes	90.1 (4.7)	93.1 (4.2)
No	9.9 (4.7)	6.9 (4.2)
<b>Birthweight</b>		
VLBW (<1500 g)	1.9 (0.4)	2.8 (0.5)
MLBW (1500-2499 g)	12.5 (2.5)	9.6 (2.1)
NBW (2500+ g)	85.6 (2.7)	87.7 (2.4)

## References and Resources

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1. Healthy People 2000 National Health Promotion and Disease Prevention Objectives, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Health Statistics; DHHS No. (PHS) 94-1232-1.
2. South Carolina Vital and Morbidity Statistics, 1998, South Carolina Department of Health and Environmental Control, Office of Public Health Statistics and Information Systems, Division of Biostatistics, January 2000.
3. The Future of Children: Low Birthweight, from the Center for the Future of Children and Lucile Packard Foundation; Volume 5 (1), Spring 1995.
4. Health and Human Services, Federal Poverty Guidelines. [Http://aspe.hhs.gov/poverty](http://aspe.hhs.gov/poverty).

## Appendix A

### South Carolina Pregnancy Risk Assessment Monitoring System (Phase III) Questionnaire



## Appendix B

### Technical Notes: Sampling and Computation of Analysis Weights

## Appendix B. Technical notes

This section presents an overview of 1) the sampling approach used in PRAMS, 2) the derivation of the analysis weights applied to the weighted dataset, and 3) the distribution of response rates.

### Sampling

The SC PRAMS project utilizes a systematic stratified sampling strategy that takes birthweight into consideration. This is the most appropriate and efficient sampling strategy when the goal is to ensure large sample strata from groups that occur at low frequency in the total population (e.g. very low birthweight (VLBW) infants (<1,500 grams) account for close to 2% of the total live births).

Therefore, SC PRAMS has sampled women having live MLBW (moderately low birthweight infants (1,500-2,499 grams) and VLBW infants at a higher rate than women having normal birthweight infants (2500 grams or more). Over-sampling of the low frequency strata ensures that reliable estimates of statistics can be presented separately for women having LBW infants.

Table A. Sampling fractions applied to each birthweight strata.

Birthweight	Sampling fraction
Very low birthweight (<1500 grams)	1/1
Moderately low birthweight (1500-2499 grams)	1/6
Normal birthweight ( $\geq$ 2500 grams)	1/70

### Computation of Analysis Weights

The SC PRAMS survey is designed to provide **statewide estimates** of the characteristics of women delivering live infants -- for example, the percentages of mothers who initiated prenatal care in the first, second, and third trimester, respectively; or the percentage of mothers who drank alcohol three months before they got pregnant or during the last trimester. To make such estimates each respondent must be

assigned an “analysis weight.” This is a multiplier that is the number of women in the population she represents after adjustments for survey design, non-response and frame coverage. The analysis weight is the product of three sub-components weights. Each sub-component weight accounts for a different factor. The first sub-component adjusts for the sample design, the second adjusts for non-response, and the third for omissions in the sampling frame (i.e. non-coverage of the sampling frame). The PRAMS staff received technical assistance from the CDC to develop and compute the analysis weights applied in the weighted dataset. The three steps involved in deriving the analysis weights are described next:

A. Adjustment for sample design: the first component is called the *sampling weight* and it corresponds to the reciprocal of the sampling fraction (shown on the previous page). For example, in the moderately low birthweight stratum, 1 out of every 6 mothers is sampled. The sampling weight applied to respondents in this particular stratum is 6.

B. Adjustment for non-response: the second component is called the *unit non-response weight*. The failure of the mother in the sample to complete a questionnaire is called unit non-response. Response adjustment cells were identified from extensive analysis of maternal characteristics affecting response rate within each birthweight stratum. The important maternal characteristics affecting response rates were maternal age, education, marital status, and race. The unit non-response weight is the product of the sampling weight times the inverse of the response rate specific to that response adjustment cell (based on maternal age, race, education, and marital status). For example, if the weight for a respondent from the moderately low birthweight stratum was 6 and that respondent was in a response adjustment cell with a 65 percent response rate, then the non-response adjusted weight for that respondent would be 9.2 ( $6/0.65$ ). The lower the response rate for a particular response adjustment cell, the larger the adjustment for non-response. Computation of the unit response weights rests on the assumption that within a stratum and non-response adjustment cell, the average of the answers of the respondents is the same as the average of the answers of the non-respondents. As a rule, if there are fewer than 25 respondents in any response adjustment cell, the response

adjustment category is combined with one or more other response categories until all response categories have at least 25 respondents. This ensures enough respondents in each category so that the average of their responses is not unduly influenced by a few women who participated.

C. Adjustment for omissions in the sampling frame (incomplete frame): The third component is called the sampling frame *non-coverage weight*. This weight adjusts for women whose live births were not included in the sampling frame (birth registry). The South Carolina birth registry system in the Office of Vital Records is efficient and expedient; therefore, the corrected sampling frame is very similar to the original frame. As a result, the ratio is close to 1 and the adjustment for non-coverage is very small.